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February 28, 2007

Advice 2888-E-A

(Pacific Gas and Electric Company ID U 39 E)

Public Utilities Commission of the State of California

<u>Subject:</u> Supplement - Net Energy Metering Compliance Filing Pursuant to Resolution E- 3992:

Revised Electric Rate Schedules NEM, NEMBIO, NEMFC, S (Standby) Electric Rule 21, and Electric Rule 21's Generating Facility Interconnection Application (Form 79-974), and a new Electric Rule 21 interconnection agreement: Generating Facility Interconnection Agreement (Eligible/Non-Eligible Net Generating Facility Export) (Form 79-1069) to accommodate single customer accounts interconnecting multiple generators subject to different tariff treatment pursuant to Resolution E-3992

Pacific Gas and Electric Company (PG&E) hereby submits for filing to its electric tariffs revised Electric Rate Schedules: **NEM** – *Net Energy Metering Service*, **NEMBIO** – *Net Energy Metering Service for Biogas Customer-Generator*, **NEMFC** – *Net Energy Metering Service for Fuel Cell Customer-Generators*, **S** – *Standby Service*, along with the revised: **Electric Rule 21** – *Generating Facility Interconnections*. Also included is a New Interconnection Agreement **79-1069** – *PG&E Generating Facility Interconnection Agreement (Eligible /Non-eligible Net Generating Facility Export)* and a revised **79-974** – *Generating Facility Interconnection Application*. The proposed tariff sheets are listed on the enclosed Attachment I. This filing entirely supersedes Advice 2888-E.

Background

Net energy metering (NEM) customers receive many benefits under PG&E's Commission approved net energy metering rate schedules: NEM, NEMBIO, and NEMFC. However, Public Utilities (PU) Code Section 2827, which establishes the

foundation for PG&E's current net energy metering tariffs, provides no guidance as to how to apply a net metered rate schedule where a customer installs an eligible NEM generator along with other types of generators that do not qualify for net energy metering (non-NEM). Similarly, PU Code Section 2827 does not address net energy metered service provisions for customers who employ multiple types of NEM-qualifying technologies – for which separate rate schedules are applicable -- at the same site (e.g. such as solar and fuel cell technologies).

The Commission originally addressed this issue in principle in Decision (D.) 03-02-068, which provides that "integrated use of nonrenewable energy sources [does not exclude] eligible renewable generation connected to the same service account from net metering." The Commission further noted, "the ineligible generator does not become eligible for net metering due to the combined configuration." To ensure that non-NEM generation does not receive the same treatment as NEM generation, the Commission stated that the use of a reverse power relay to ensure that power is not fed back into the utility grid could provide adequate assurance that a nonrenewable generation system, even when connected to the same service account as the eligible renewable generator, would not export electricity.

Subsequently, the Rule 21 Working Group discussed these and related issues. On February 16, 2005, the Group issued its *Recommended Changes to Interconnected Rules Report*.

Based in part on this Report, the Commission issued Decision (D.) 05-08-013 Interim Opinion Adopting Changes In Interconnecting Rules for Distributed Generation, on August 25, 2005, as part of Rulemaking (R.) 04-03-017. In the decision, the Commission notes, "We will adopt the CEC's [Working Group's] recommendation with three protections:

"With regard to DG [distributed generation] facilities that include a NEM eligible generator and a generator that does not qualify for net energy metering (non-NEM):

- 1) any energy generated by the renewable DG that exceeds the customer's annual energy usage will not be compensated as renewable DG;
- 2) in no event will non-net metering [i.e., non-Net Energy Metering] generators receive credits designed for NEM projects; and
- 3) any DG owner operating under two tariffs must install at its cost individual meters or breakers that prevent the export from the non-net metering [i.e., Net Energy Metering] generator. Otherwise, for DG facilities that operate under two tariffs applicable to different technologies, utility tariffs should prohibit any provision or methodology that prevents export from an NEM generator even if the non-NEM generator is operating."

On February 27, 2006, PG&E filed Advice Letter (AL) 2793-E in compliance with D.05-08-012. In the filing, PG&E submitted a new rate schedule called NEMCT. As a part of the NEMCT tariff, PG&E proposed a crediting method based on proration of NEM-eligible to total generation when non-NEM eligible generation was involved and exporting. PG&E believed this crediting method complied with D.05-08-012. The other Investor-Owned Utilities (IOUs) filed similar tariffs also based on a pro-ration methodology.

PG&E's and the other IOU's Advice Letters were protested by the City of San Diego (City) on March 13, 2006, and by the Division of Ratepayer Advocates (DRA) on March 22, 2006. Both parties protested the pro-rating method and favored an alternative method called "stacking." PG&E responded to City's and DRA's protests on March 27, 2006.

In response to PG&E's February 27, 2006, Advice Letter and the City's and DRA's protests, the Commission issued Resolution E-3992 (E-3992) on July 20, 2006, ordering extensive changes to PG&E's and the other IOU's proposed tariff filings.

E-3992 specified that the filing should refer to multiple generator facilities as for "Multiple Tariff" facilities as opposed to "Combined Technology" facilities.

Other key changes required by E-3992 include:

- The addition of language regarding Multiple Tariff Facilities to PG&E's existing NEM, NEMBIO, NEMFC tariffs, Rule 21 and Standby tariffs (as an alternative to PG&E's proposal for a single stand alone tariff for multigeneration facilities);
- The use of the "stacking" method of crediting Multiple Tariff Facility customers for their NEM-eligible generation, rather that the "pro-rata" method;
- Allowing only a single Net Generation Output Meter (NGOM) for each generator (or group of generators if more than one is in the group subject to the same tariff treatment, also referred to as a "Constituent Generator Group") for a multiple generator facility;
- Requiring a NGOM only on the NEM-eligible generator group or on each of the NEM-Eligible groups and/or a load meter if a non-NEM-eligible generator group is connected on the same service account without a nonexport relay;
- The revision of the interconnection application, Generating Facility Interconnection Application (Form 79-974) to support multiple tariff generating facilities interconnections by identifying early-on in the interconnection process the technical and operational specifics about the new Generating Facilities;
- The creation of a new interconnection agreement to support Multiple Tariff Facilities (Form 79-1069). Due to the difficulty inherent in contractually memorializing multiple tariff interconnections, it was felt that a new

agreement, as opposed to modifying an existing agreement, would provide more clarity to customers and facilitate interconnection.

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- Clarification that the liability insurance requirements that are applicable to Multiple Tariff Facility interconnections are those requirements provided in PU Code Section 2827, and that, for non-NEM-eligible generators, these insurance provisions are to be determined by considering the aggregate capacity of all generators – both NEM and Non-NEM – on a single account;
- Deleting from the metering section of Rule 21 the requirement for NGOMs for non-NEM-eligible generators, unless NGOMs are required by the customer's Otherwise Applicable Rate Schedule (OAS), for operational purposes or under the provisions of a power purchase agreement;
- Offering three NGOM options for Multiple Tariff Facilities;
- Revising Rule 21, Section F.3 "to make the proposed option in PG&E AL 2792-E for Rule 22 NGOM requirements applicable to NEM eligible generators in a [generating facility] under multiple tariffs, as stated in the Decision Summary";
- Revising Rule 21, Section I to refer to Section F for NGOM requirements in generating facilities that include a non-NEM-eligible generators without a non-export relay;
- Compliance with D.02-03-057, D. 03-02-068 and D. 05-08-013 regarding allocating costs for interconnection studies and distribution system modifications:
- Revising PG&E's Schedule S—Standby to be consistent with the resolution;
- Requiring that terminology "be accurate and uniform within tariffs and among utilities".

On August 21, 2006, PG&E submitted AL 2888-E in a timely manner to comply with Resolution E-3992.

After AL 2888-E was filed, the Energy Division approached PG&E and worked closely with PG&E to make further revisions to the tariffs filed in Advice 2888-E to comply with Resolution E-3992. At the request of Energy Division, those amended tariffs are included in this instant filing. The proposed changes are not intended to modify PG&E's administration of these tariffs for customers who do not have Multiple Tariff Facilities.

Tariff Additions and Revisions

A. Electric Rate Schedule NEM – Net Energy Metering Service

The changes made to the NEM Tariff include:

- ➤ Added language in the *Applicability* section, to include "Multiple Tariff Facilities" and "Constituent Generator Groups", and to add a reference to PG&E's Electric Rule 21 for additional considerations and requirements.
- ➤ Changes to the *Rates* section to address rates for Multiple Tariff Facilities, including: (1) clarification that the Standby Tariff may or may not apply depending on the tariffs that govern a given customer's multiple generators; (2) specification that the otherwise applicable rate schedule (OAS) will be used to determine the credits and charges for a multiple tariff generator facility; (3) clarification that changes may be made to the OAS in accordance with Rule 12; and (4) specification that customers already on NEM seeking treatment under sub-schedule NEMMT, will have a true-up on their final bill before interconnecting any additional generating facilities.
- The section that was formerly listed as *Options* on the NEM tariff was changed to *Sub-schedules*, and the sub-schedule *NEMMT* was added for Multiple Tariff Facilities. The description of sub-schedule *NEMEXPM* (monthly-billed expanded NEM) was modified to clarify that a hybrid system that includes both wind (50kw and less) and solar may be included on this sub-schedule when the combined total is 10 kw or greater because either generator by itself would be subject to the same rate treatment under schedule NEM and hence such an arrangement is not a Multiple Tariff Facility. Similarly, the *NEMW* sub-schedule description was modified to include the requirement that it be greater than 50kW, thus clarifying an existing requirement for this sub-schedule per PU Code 2827.8.
- Added language to Special Condition 1, Metering, to reference the Multiple Tariff Facilities metering requirements in Special Condition 6.
- ➤ In Special Condition 3, *Interconnection*, added language addressing the application and interconnection agreements for Multiple Tariff Facilities.
- ➤ In Special Condition 5, Wind Energy Co-Metering, added a sentence to clarify that Multiple Tariff Facilities involving both a Wind Energy Co-Metering eligible generator and a solar generator eligible for NEM, will be treated under the terms of Special Condition 6.

- > Added a new special condition, Special Condition 6, Multiple Generating Facilities. Included in this section is: 1) a reference to Rule 21, Section F for the requirements of any net generation output meters (NGOM) that may be required; 2) two definitions, for those generators treated under NEM tariffs (NEM-Eligible Constituent Generator Group) and for those not under NEM tariffs (non-NEMeligible Constituent Generator Group) 3) clarification that the metering for Multiple Tariff Facilities must satisfy the requirements necessary to bill under the OAS; 4) the requirement for the cost for certain equipment under this special condition, including metering or non-export relays, will be paid for by the customer; 5) the clarification that Multiple Tariff Facilities that include biogas fueled facilities that are aggregating dairy-related account load under the provisions in sub-schedule NEMBIOA will be treated as a separate Constituent Generator Group; 6) a methodology to apportion the credits when generators are eligible for two or more types of NEM tariffs; 7) in the last Section 6(g), provisions for two different basic configurations of Multiple Tariff Facilities, the first having two or more NEM-eligible Constituent Generator groups and the second having both NEMeligible and non-NEM-eligible Constituent Generator Groups. Interconnection options, metering and where necessary, billing credit allocation is described for both configurations.
- ➤ In the Applicability section and elsewhere, revised language regarding "residential and small commercial customers" from PU Code 2827 to reference PG&E's Rule 1 definition of "Small Customer," which was written based on the same PU Code section 331, subdivision (h). These changes will not affect the existing applicability or implementation of the NEM tariffs.
- ➤ Reorganized Special Condition 2, *Billing*, for clarity. Also, added some terms, such as Reconciliation Period, to make PG&E's NEM tariffs (NEM, NEMFC and NEMBIO) consistent. These changes will not affect the existing applicability or implementation of the NEM tariffs.
- ➤ Defined and consistently used acronyms such as "Time of Use" (TOU), "Otherwise Applicable Rate Schedule" (OAS), "Energy Service Provider" (ESP), etc. Also, revised the term "electricity" to refer to "energy", as appropriate. These changes will not affect the existing applicability or implementation of the NEM tariffs.
- Added language to the Applicability section of the NEM section regarding the technical limitations of a NEM facility's ability to export

in areas of PG&E's distribution system (parts of downtown Oakland and San Francisco) having a network grid configuration.

➤ Added language clarifying "UDC Consolidated Billing" by referring to Rule 22. This change will not change affect the existing applicability or implementation of the NEM tariffs.

B. Electric Rate Schedule NEMFC – Net Energy Metering Service for Fuel Cell Customer-Generators

The changes made to the NEMFC Tariff include:

- ➤ Changes to the Applicability section to address customers with a fuel cell generator that are also installing or have one or more other generators subject to different tariff provisions served through same point of common coupling. It defines the new terms, "Multiple Tariff Facilities" and "Constituent Generator Groups", creates a new special condition and refers to PG&E's Electric Rule 21 for additional considerations and requirements.
- ➤ Changes to the *Rates* section to address rates for Multiple Tariff Facilities, including clarifying how the otherwise applicable rate schedule (OAS) for a Multiple Tariff Facility will be used to determine the credits and charges, and changes may be made to the OAS in accordance with Rule 12; and requiring that customers already on NEMFC seeking treatment under sub-schedule NEMMT will have a true-up on their final bill before interconnecting any additional generating facilities.
- Special Condition 1, which was formerly entitled Required Contracts on the NEMFC tariff, was changed to Sub-schedules and the subschedule NEMMT was added for Multiple Tariff Facilities.
- ➤ In Special Condition 1, *Metering*, (formerly Special Condition 2) added language in sub-section (c) to refer the metering requirements for Multiple Tariff Facilities in Special Condition 5.
- ➤ In Special Condition 3, *Interconnection*, added language addressing the application and interconnection agreements for Multiple Tariff Facilities.
- ➤ In Special Condition 4, *Standby Charges*, added language referencing the Standby requirements for Multiple Tariff Facilities in Special Condition 5.
- ➤ A new special condition was added, Special Condition 5, *Multiple Generating Facilities*. Included in this section is: 1) a reference to

Rule 21, Section F for the requirements of any net generation output meters (NGOM) that may be required; 2) two definitions, for those generators treated under NEM tariffs (NEM-eligible Constituent Generator Group) and for those not under NEM tariffs (non-NEMeligible Constituent Generator Group); 3) the requirement that the Metering for Multiple Tariff Facilities must satisfy the requirements necessary to bill the OAS, and any equipment including metering. non-export relays will be paid for by the customer; 4) clarification that Multiple Tariff Facilities that include biogas fueled facilities that are aggregating dairy related account load under the provisions in subschedule NEMBIOA, will be treated as a separate Constituent Generator Group; 5) a methodology on how to apportion the credits when generators eligible for two or more types of NEM tariff treatment are present in a Multiple Tariff Facility; 6) In the last section 6(g), provisions for two different basic configurations of Multiple Tariff Facilities, the first having two or more NEM-eligible Constituent Generator groups and the second having both NEMeligible and non-NEM-eligible Constituent Generator Groups. Interconnection options, metering and where necessary, billing credit allocation is described for both configurations.

- ➤ Language was added to the *Applicability* section of the NEMFC section regarding the technical limitations of NEMFC facility's ability to export in certain areas of our distribution system (parts of downtown Oakland and San Francisco) having a network grid configuration.
- ➤ Eliminated Former Special Condition 5, *Definitions*. The definitions were incorporated into the existing text. Thus, sub-section (a), the definition of an *Eligible Fuel Cell Electric Generation Facility* was added to the applicability section. Sub-sections (b), *Date of Final Interconnection*, and (d) *Relevant Period*, were combined into a new paragraph defining Relevant Period in Special Condition 2, *Billing*. Sub-section (c) and (e), regarding the *Otherwise Applicable Rate Schedule* and *Eligible Metered Service Account* respectively, were covered in the *Applicability* section. Sub-section (f) and (g), *Annual Reconciliation* and *Eligible Generation Credit* respectively, were incorporated into Special Condition 2, *Billing*. Sub-sections (h) and (i), *Net Energy* and *Generation Rate Component* respectively, were incorporated into the *Rates* Section.

C. Electric Rate Schedule NEMBIO – Net Energy Metering Service for Biogas Customer-Generator

The changes made to the NEMBIO Tariff include:

- Changes to the Applicability section to address customers with an eligible biogas generator that are also installing or have one or more other generators subject to different tariff treatment served at the same point of common coupling. It defines the new terms, "Multiple Tariff Facilities" and "Constituent Generator Groups", creates a new special condition and refers to PG&E's Electric Rule 21 for additional considerations and requirements.
- ➤ Changes to the *Rates* section to address rates for Multiple Tariff Facilities, including clarifying how the otherwise applicable rate schedule (OAS) for a Multiple Tariff Facility will be used to determine the credits and charges, and changes may be made to the OAS in accordance with Rule 12; and requiring that customers already on NEMBIO seeking treatment under sub-schedule NEMMT to have a true-up on their final bill before interconnecting any additional generating facilities.
- ➤ Special Condition 1, which was formerly entitled *Required Contracts* on the NEMBIO tariff, was changed to *Sub-schedules* and the subschedule NEMMT was added for Multiple Tariff Facilities. NEMBIOA, a NEMBIO eligible facility with aggregated dairy accounts, was also added and made into a sub-schedule rather than an option.
- ➤ Included language in Special Condition 1, *Metering*, (formerly Special Condition 3) sub-section (d), to refer the metering requirements for Multiple Tariff Facilities to Special Condition 6. A repeated phrase ("have to") was deleted in sub-section (b).
- ➤ The former Special Condition 2, *Load Aggregation*, became Special Condition 5.
- ➤ Added a new Special Condition 3, *Interconnection*, including application and interconnection agreements for NEMBIO, NEMBIOA (aggregated accounts) and Multiple Tariff Facilities.
- ➤ Added language in Special Condition 5, Standby Charges, referencing the Standby requirements for Multiple Tariff Facilities in Special Condition 6.
- ➤ A new special condition was added, Special Condition 6, *Multiple Generating Facilities*. Included in this section is: 1) a reference to Rule 21, Section F for the requirements of any net generation output meters (NGOM) that may be required; 2) two definitions, for those generators treated under NEM tariffs (NEM-eligible Constituent Generator Group) and for those not under NEM tariffs (non-NEM-

eligible Constituent Generator Group); 3) the requirement that Metering for Multiple Tariff Facilities must satisfy the requirements necessary to bill the OAS, and any equipment including metering, non-export relays will be paid for by the customer; 4) clarification that Multiple Tariff Facilities that include biogas fueled facilities that are aggregating dairy related account load under the provisions in subschedule NEMBIOA, will be treated as a separate Constituent Generator Group; 5) a methodology on how to apportion the credits when generators eligible for two or more types of NEM tariff treatment are present in a Multiple Tariff Facility; 6) in the last section 6(g), provisions for two different basic configurations of Multiple Tariff Facilities, the first having two or more NEM Eligible Constituent Generator groups and the second having both NEM Eligible and non-NEM Eligible Constituent Generator Groups. Interconnection options, metering and where necessary, billing credit allocation is described for both configurations.

- ➤ Language was added to the *Applicability* section of the NEMBIO section regarding the technical limitations of NEMBIO facility's ability to export in areas of PG&E's distribution system (parts of downtown Oakland and San Francisco) having a network grid configuration.
- ➤ Eliminated former Special Condition 6, *Definitions*. The definitions were incorporated to the existing sections. Thus, sub-section (a), the definition of an *Eligible Biogas Electric Generation Facility* was added to the applicability section. Sub-section (b), *Date of Final Interconnection*, and (d) *Relevant Period*, were combined into a new paragraph defining Relevant Period in Special Condition 2, *Billing*. Sub-section (c) regarding the *Otherwise Applicable Rate Schedule*, was covered in the *Applicability* section. Sub-section (e), regarding an *Eligible Metered Service Account* respectively, was covered in Special Condition 4, *Load Aggregation*. Sub-section (f) and (g), *Annual Reconciliation* and *Eligible Generation Credit* respectively, were incorporated into Special Condition 2, *Billing*. Sub-sections (h) and (i), *Net Energy* and *Generation Rate Component* respectively, were incorporated into the *Rates* Section.

D. Electric Rate Schedule S – *Standby*

This filing also includes changes to schedule S, Standby Service, to accommodate combined technologies (multiple tariff generation combinations), to clarify that a standby exemption will be granted only to qualifying generators in accordance with the Public Utilities Code. The standby reservation capacity will be set not to exceed the rated nominal capacity of the non-eligible NEM generator(s), thereby only allowing qualifying generators to receive a standby exemption.

At the recommendation of the Energy Division, specific additional language was added to:

- ➤ The Applicability section clarifying that a Standby exemption may apply to net energy metering customers as well as certain non-net energy metered customers:
- > Special Condition 4, where a clarification was made to allow for reverse metering in the case of net energy metering;
- Special Condition 7(a) and 7(c), where provisions were made for reducing the rated capacity by the capacity of all interconnected net energy metered generators;
- Special Condition 12, where changes were made to the multiple tariff language in the Standby Tariff file with Advice Letter 2793-E (filed on February 22, 2006). The language further qualifies how Standby exemption will apply to any net energy metering generators included in such an arrangement.

Various other minor grammatical changes were also made.

E. Electric Rule 21 – Generating Facility Interconnections

- Rule 21, Section C, Table C.2: was modified to more accurately reflect cost responsibility for four scenarios of multiple tariff interconnections. The footnotes have been revised as follows:
 - (1) for those instances wherein the costs attributable to NEM versus non-NEM generators cannot be determined, a pro-ration of costs will be based upon the annual expected energy output (kWh) derived from the installed nameplate of the generator(s) modified by technology-specific capacity/availability factors; and
 - (2) the change in operation of a non-NEM generator from non-export to export, in conjunction with the interconnection of a new NEM generator(s) will result in additional costs to the Producer, as identified in (1) above.

Rule 21, Section F.8: was modified to reflect the new descriptive identifier for multiple tariff interconnections: Constituent Generator Groups. Further, for billing administration and metering requirements for multiple tariff interconnections, the Section directs readers to the appropriate NEM tariff schedule.

Rule 21, Section I: was modified to reflect that for multiple tariff interconnections that power will be exported across the Point-of-Common Coupling (PCC). The Section has been revised to refer back to Rule 21's Section F.8 for additional detail.

F. Rule 21 Interconnection Application, Form 79-974:

was modified to identify: meter access issues; customer cost responsibility for reviews, studies, interconnection facilities and distribution system modifications; and lastly, to identify the technical specifications of the different multiple tariff technology combinations. The goal of these changes was to improve the DG customer's interconnection experience. The revised application is focused on shaping customer expectations early on in the interconnection process and, to facilitate timely reviews/studies by identifying what multiple tariff technology generation will be installed and the Generating Facility's intended mode of operation.

G. Rule 21, Interconnection Agreement, Form 79-1069:

was modified to reflect the various insurance provisions for different multiple tariff technology combinations.

Protests

Anyone wishing to protest this filing may do so by letter sent via U.S. mail, by facsimile or electronically, any of which must be received no later than 20 days after the date of this filing, which is **March 20, 2007**. Protests should be mailed to:

> CPUC Energy Division Tariff Files, Room 4005 DMS Branch 505 Van Ness Avenue San Francisco, California 94102

Facsimile: (415) 703-2200

E-mail: jnj@cpuc.ca.gov and mas@cpuc.ca.gov

Copies of protests also should be mailed to the attention of the Director, Energy Division, Room 4004, at the address shown above.

The protest also should be sent via U.S. mail (and by facsimile and electronically, if possible) to PG&E at the address shown below on the same date it is mailed or delivered to the Commission:

> Brian K. Cherry Vice President, Regulatory Relations Pacific Gas and Electric Company

77 Beale Street, Mail Code B10C P.O. Box 770000 San Francisco, California 94177

Facsimile: (415) 973-7226 E-mail: PGETariffs@pge.com

Effective Date

PG&E requests that this advice filing become effective **August 21, 2006**, the effective date requested in Advice 2888-E.

Notice

In accordance with General Order 96-A, Section III, Paragraph G, a copy of this advice letter is being sent electronically and via U.S. mail to parties shown on the attached list and Service List R.04-03-017. Address changes to the General Order 96-A service list should be directed to Rose de la Torre at (415) 973-4716. Advice letter filings can also be accessed electronically at:

http://www.pge.com/tariffs

Brian K. Chang / The Vice President, Regulatory Relations

Attachments

cc: Service List R.04-03-017

CALIFORNIA PUBLIC UTILITIES COMMISSION

ADVICE LETTER FILING SUMMARY ENERGY UTILITY

MUST BE COMPL	MUST BE COMPLETED BY UTILITY (Attach additional pages as needed)					
Company name/CPUC Utility No. Pacific Gas and Electric Company (ID U39)						
Utility type:	Contact Person: <u>Bernard Lam</u>					
☑ ELC ☑ GAS	Phone #: <u>(415) 973-</u>	<u>4878</u>				
□ PLC □ HEAT □ WATER	E-mail: <u>bxlc@pge.cc</u>	<u>om</u>				
EXPLANATION OF UTILITY T	YPE	(Date Filed/ Received Stamp by CPUC)				
ELC = Electric GAS = Gas PLC = Pipeline HEAT = Heat	WATER = Water					
Advice Letter (AL) #: 2888-E-A	•					
Subject of AL: Supplement - Net Ener	rgy Metering Compli	ance Filing Pursuant to Resolution E- 3992				
Keywords (choose from CPUC listing):	Compliance, Net E	Energy				
AL filing type: \square Monthly \square Quarterly	y □ Annual ☑ One	Time Dother				
If AL filed in compliance with a Comm	nission order, indicat	e relevant Decision/Resolution #:				
<u>E-3992</u>						
Does AL replace a withdrawn or reject	ed AL? If so, identif	y the prior AL: <u>No</u>				
Summarize differences between the A	L and the prior with	drawn or rejected AL¹:				
Resolution Required? □ Yes ☑ No						
Requested effective date: August 21, 2	<u>8006</u>	No. of tariff sheets: 41				
Estimated system annual revenue effe	ect (%): <u>N/A</u>					
Estimated system average rate effect	(%): <u>N/A</u>					
When rates are affected by AL, include (residential, small commercial, large (showing average rate effects on customer classes ting).				
Tariff schedules affected: See Attachr	nent I					
Service affected and changes proposed ¹ : See Title and Advice Letter						
Pending advice letters that revise the same tariff sheets: <u>2888-E</u>						
Protests and all other correspondence regarding this AL are due no later than 20 days after the date of this filing, unless otherwise authorized by the Commission, and shall be sent to:						
CPUC, Energy Division Pa		cific Gas and Electric Company				
		ttn: Brian K. Cherry				
DMS Branch		Vice President, Regulatory Relations 7 Beale Street, Mail Code B10C				
ouo van Ness Ave.,		O. Box 770000				
''^		n Francisco, CA 94177 mail: PGETariffs@pge.com				

 $^{^{\}mbox{\tiny 1}}$ Discuss in AL if more space is needed.

ATTACHMENT 1 Advice 2888-E-A

Cal P.U.C. Sheet No.	Title of Sheet	Cancelling Cal P.U.C. Sheet No.
26115-E	Schedule SStandby Service	25424-E
26116-E	Schedule S (Cont.)	16203-E
26117-E	Schedule S (Cont.)	24912-E
26118-E	Schedule S (Cont.)	16205-E
26119-E	Schedule S (Cont.)	19220-E
26120-E	Schedule NEMNet Energy Metering Service	25419-E
26121-E	Schedule NEM (Cont.)	23612-E
26122-E	Schedule NEM (Cont.)	22682-E
26123-E	Schedule NEM (Cont.)	25052-E
26124-E	Schedule NEM (Cont.)	25503-E
26125-E	Schedule NEM (Cont.)	New
26126-E	Schedule NEM (Cont.)	22685-E
26127-E	Schedule NEM (Cont.)	23613-E
26128-E	Schedule NEM (Cont.)	New
26129-E	Schedule NEM (Cont.)	New
26130-E	Schedule NEM (Cont.)	New
26131-E	Schedule NEMFCNet Energy Metering Service For Fuel Cell Customer-Generators	24065-E
26132-E	Schedule NEMFC (Cont.)	New
26133-E	Schedule NEMFC (Cont.)	21480-E
26134-E	Schedule NEMFC (Cont.)	New
26135-E	Schedule NEMFC (Cont.)	21481-E
26136-E	Schedule NEMFC (Cont.)	21482-E
26137-E	Schedule NEMFC (Cont.)	23614-E
26138-E	Schedule NEMBIONet Energy Metering Service for Biogas Customer-Generators	24060-E
26139-E	Schedule NEMBIO (Cont.)	New

ATTACHMENT 1 Advice 2888-E-A

Cal P.U.C. Sheet No.	Title of Sheet	Cancelling Cal P.U.C. Sheet No.
26140-E	Schedule NEMBIO (Cont.)	22676-E
26141-E	Schedule NEMBIO (Cont.)	New
26142-E	Schedule NEMBIO (Cont.)	New
26143-E	Schedule NEMBIO (Cont.)	22677-E
26144-E	Schedule NEMBIO (Cont.)	22678-E
26145-E	Schedule NEMBIO (Cont.)	23615-E
26146-E	Rule 21Generating Facility Interconnections	New
26147-E	Rule 21 (Cont.)	24597-E
26148-E	Rule 21 (Cont.)	23712-E
26149-E	Sample Form 79-974Generating Facility Interconnection Application	21484-E
26150-E	Sample Form 79-1069Generating Facility Interconnection Agreement (Multiple Tariff)	New
26151-E	Table of Contents Rate Schedules	25923-E
26152-E	Table of Contents Rules	25924-E
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Pacific Gas and Electric Company San Francisco, California

SCHEDULE S-STANDBY SERVICE

APPLICABILITY:

PG&E will supply electricity and capacity on a standby basis under the terms of this schedule for customers: (1) whose supply requirements would otherwise be delivered through PG&E-owned facilities (including Independent System Operator (ISO)-controlled transmission facilities) but are regularly and completely provided through facilities not owned by PG&E; (2) who at times take auxiliary service (by means of a double-throw switch) from another public utility and who signed Standard Form 79-285 prior to the day after the Commission ends the rate freeze ordered by Assembly Bill 1890; (3) who require PG&E to provide reserve capacity and stand ready at all times to supply electricity on an irregular or noncontinuous basis; or (4) whose nonutility source of generation does not qualify under items (1), (2), or (3) above, but who qualify for and elect to receive back-up service under the provisions of Special Condition 7 below. Any customer under a time-of-use rate schedule using electric generation technology that meets the criteria as defined in Electric Rule 1 for Distributed Energy Resources is exempt from the otherwise applicable Standby Reservation Charges. Customers qualifying for this exemption will continue to pay the applicable energy, reactive demand, customer and meter charges provided for under this rate schedule, and shall be subject to the requirements outlined in Special Condition 11 of this tariff.

Customers whose premises are: (1) supplied only in part by electric energy from a non-utility source of supply, and who do not qualify for or elect to take back-up service under the provisions of Special Condition 7, and/or (2) whose regular non-utility source of supply is subject to an extended outage as defined under Special Condition 9, will receive service under one of PG&E's other applicable rate schedules. However, this service will be provided subject to the provisions of Special Conditions 1 through 6 and 8 through 10 below, and reservation charges as specified under Section 1 will also be applicable. Customers who utilize solar generating facilities which are less than or equal to one megawatt to serve load and who do not sell power or make more than incidental export of power into PG&E's power grid and who have not elected service under one of PG&E's net energy metering schedules,* will be exempt from paying standby charges

under this provision.

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TERRITORY:

PG&E's entire service territory.

RATES:

Total bundled service charges are calculated using the total rates shown below. Direct Access (DA) and Community Choice Aggregation (CCA) charges shall be calculated in accordance with the paragraph in this rate schedule titled Billing.

Customers taking electric service under one of PG&E's net energy metering schedules may also be eligible for standby exemption. See Special Condition 11 of this tariff.

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Advice Letter No. Decision No.

2888-E-A

Issued by Brian K. Cherry Vice President Regulatory Relations

SCHEDULE S—STANDBY SERVICE (Continued)

Cancelling

SPECIAL CONDITIONS: (Cont'd.)

4. PARALLEL OPERATION: Any customer may operate its generating plant in parallel with PG&E's system if the customer's plant is constructed and operated in accordance with Rule 21. However, a customer who operates its plant in parallel must assume responsibility for protecting PG&E and other parties from damage resulting from negligent operation of the customer's facilities. Customers may be required to meet requirements imposed by other governing entities having jurisdiction over PG&E's transmission lines including the ISO and the Western Systems Coordinating Council. The customer shall provide, own, install, and maintain all facilities necessary to accommodate any metering equipment specified by PG&E. Meters shall not allow reverse registration except as allowed under PG&E's net energy metering schedules.

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- 5. CONTRACT: This schedule is applicable only on a one-year contract Form No. 79-285). Once the initial one-year term is over, the contract will automatically continue in effect for successive terms of one year each until it is cancelled. Either party may cancel the contract by giving written notice not less than 30 days prior to the end of the current term. If the customer at any time increases the capacity of a load connected to its plant (or other source), the customer shall promptly notify PG&E. Any revision to the Reservation Capacity shall then be redetermined to be applicable beginning in the month in which such increase occurs.
- 6. LIMITATION ON RESERVATION CAPACITY SERVED: Standby service to new or increased loads is limited to PG&E's ability to serve such loads without jeopardizing service to existing customers on rate schedules for firm service, including standby service. If standby service to any load or combination of loads is refused by PG&E, PG&E shall notify the California Public Utilities Commission (Commission) in writing. Standby service will require a special contract which shall be subject to approval of the Commission in the following cases:
 - a. Reservation Capacity exceeds 100,000 kW per account;
 - b. The combined Reservation Capacity for two or more customers whose other power source is a single, nonutility plant, exceeds 100,000 kW; and
 - c. The service is of an unusual character, as determined by PG&E.

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Advice Letter No. Decision No.

2888-E-A

Issued by **Brian K. Cherry**Vice President
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Cal. P.U.C. Sheet No.

SCHEDULE S—STANDBY SERVICE (Continued)

SPECIAL CONDITIONS: (Cont'd.)

- SUPPLEMENTAL STANDBY SERVICE (BACKUP REQUIREMENTS):
 - Schedule E-19, Schedule E-20 and Schedule E-37 customers whose nonutility source of generation does not regularly supply all the power necessary at their premises may elect to receive the back-up portion of their total service requirement under Schedule S if: (1) the rated capacity of the customer's on-site generator less the capacity of all generating units qualifying for and taking service under any of PG&E's net energy metering schedules is at least 50 percent of the customer's maximum kW demand; and (2) load profile recorders are installed to separately meter the net on-site generation and the on-site load. Supplemental standby service will be available to all Schedule E-19 or Schedule E-20 customers whose nonutility source of generation does not regularly supply all the power necessary at their premises, if load profile recorders are installed to separately to meter the net on-site generation and the on-site load, effective May 1, 1994. If the customer elects instead to receive all of their service under Schedule E-19 or E-20, however, Special Conditions 1 through 6 of this Schedule will apply to the back-up portion of their load, with a Reservation capacity as determined by the net capacity of the on-site generation.
 - Supplemental standby service requires the installation of a load profile recorder. PG&E will install load profile recorders, subject to meter availability. The customer shall provide, install, own, and maintain all facilities necessary to accommodate metering equipment specified by PG&E. An additional charge applies for Supplemental Standby Service. A Supplemental Standby Service Meter Charge will be added to the standby customer's bill in addition to the TOU Energy Charges for back-up requirements, specified in the Rates Section. Supplemental standby service customers will also pay the appropriate rate Schedule E-19 or E-20 charges, including the Customer Charge, for their supplemental power use.

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Advice Letter No. Decision No.

2888-E-A

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SCHEDULE S—STANDBY SERVICE (Continued)

SPECIAL CONDITIONS: (Cont'd.)

7. SUPPLEMENTAL STANDBY SERVICE (BACKUP REQUIREMENTS): (Cont'd.)

Back-up requirements are the portion of the customer's maximum demand and energy usage in any billing month caused by the nonoperation of the customer's alternative source of power. The customer's Reservation Capacity shall be determined by the net capacity of the customer's on-site generation less the capacity of all generating units qualifying for and taking service under any of PG&E's net metering schedules, calculated as the average gross continuous full load capability of the generator during the hours between 10:00 a.m. and 8:00 p.m. of the winter part-peak period, less all auxiliary loads. During the winter season, supplemental loads are any on-site loads in excess of the Reservation Capacity.

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During the summer season, supplemental loads are any on-site loads in excess of the Reservation Capacity, minus the customer's Summer Season Operating Capacity Adjustment. The customer's Summer Season Operating Capacity Adjustment shall be calculated as the difference between the average gross continuous full load capability during the hours between 10:00 a.m. and 8:00 p.m. of the winter part-peak period and the average gross continuous full load capability during the same hours of the summer season. The customer's Reservation Capacity and Summer Season Operating Capacity Adjustment are both subject to annual revision based upon review of recorded operating data for the customer's generation. Back-up requirements will be billed under Schedule S, while supplemental loads will be billed under the provisions of the customer's otherwise applicable rate schedule.

The customer's metered reactive power usage will be prorated for the purpose of assigning such usage separately to the customer's bills for backup power and for supplemental power. In particular, a single Power Factor Adjustment (as specified under Special Condition 8) will be calculated based on the ratio of all kWh and kVAh used, and then applied separately to the customer's bills for backup and supplemental power. The Reactive Demand Charge (see Special Condition 2) will be calculated by multiplying the customer's maximum measured reactive demand by the ratio of the current Reservation Capacity and the customer's maximum total kW of backup and supplemental load.

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Advice Letter No. Decision No.

2888-E-A

Issued by **Brian K. Cherry**Vice President
Regulatory Relations

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SCHEDULE S-STANDBY SERVICE (Continued)

SPECIAL CONDITIONS: (Cont'd.)

- 10. NON-TIME-OF-USE METERING: In those cases where PG&E deems it is not cost-effective to install a time-of-use (TOU) meter, PG&E will estimate the customer's kWh usage for each TOU period, and apply all TOU charges to the estimated kWh usage by TOU period. PG&E will estimate the customer's total kWh usage in the billing period to kWh usage within each TOU period based on a percentage breakdown using the ratio of the number of hours in each TOU period to total hours in the billing period.
- 11. DISTRIBUTED ENERGY RESOURCES EXEMPTION: Public Utilities (PU) Code Sections 353.1 and 353.3, provide for certain exemptions of standby reservation charges for qualifying "distributed energy resources." See Electric Rule 1 for definition of Distributed Energy Resources. Customers qualifying for an exemption from standby charges under PU Code Sections 353.1 and 353.3, as described above, must take service on a TOU schedule in order to receive this exemption until a real-time pricing program, as described in PU Code Section 353.3, is made available. Once available, customers qualifying for the distributed energy resources exemption must participate in the real-time program referred to above. Qualification for and receipt of this distributed energy resources exemption does not exempt the customer from metering charges applicable to TOU and real-time pricing, or exempt the customer from reasonable interconnection charges, nonbypassable charges as required in Preliminary Statement BB - Competition Transition Charge Responsibility for All Customers and CTC Procurement, or obligations determined by the Commission to result from participation in the purchase of power through the California Department of Water Resources, as provided in PU Code Section 353.7.
- 12. MULTIPLE TECHNOLOGIES: Customers with generating facilities that are comprised of multiple generating units that apply different technologies, and with at least one generating unit that qualifies for and takes service under a PG&E net energy metering tariff, and where all of the generating units are served through the same Point of Common Coupling as defined in PG&E's Rule 21, may be eligible for standby exemption for a portion of their standby requirement. Such exemption will be granted only for the duration allowed by the applicable tariff schedule and in accordance with the California Public Utilities Code. The customer will be billed under its otherwise-applicable rate schedule, and Special Conditions 1 through 7 of this Schedule S will not apply to the eligible generating portion qualifying for standby exemption. For the generating portion not qualifying for standby exemption, Special Conditions 1 through 7 of Schedule S will apply. The Standby reservation capacity will be set at a level not to exceed the nominal rated capacity of the non-eligible generating unit(s). Qualification for and receipt of this exemption does not exempt customers with multiple technologies from metering charges applicable to TOU and real-time pricing, or exempt the customer from reasonable interconnection charges, non-bypassable charges and other applicable tariff obligations.

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Advice Letter No. Decision No.

2888-E-A

Issued by Brian K. Cherry Vice President Regulatory Relations

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SCHEDULE NEM—NET ENERGY METERING SERVICE

APPLICABILITY:

This net energy-metering schedule is applicable to a customer who uses a solar or wind turbine electrical generating facility, or a hybrid system of both, with a capacity of not more than 1,000 kilowatts that is located on the customer's owned, leased, or rented premises, is interconnected and operates in parallel with PG&E's transmission and distribution systems, including wind energy co-metering customers as defined in California Public Utilities Code Section 2827.8, and is intended primarily to offset part or all of the customer's own electrical requirements (hereinafter "eligible customergenerator" or "customer"). Certain incremental billing and metering costs set forth in this schedule that are related to net energy metering are applicable to Energy Service Providers (ESPs) serving eligible customer-generators.

This service is not applicable to a Direct Access (DA) customer where the customer's ESP does not offer a net energy metering tariff. In addition, if an eligible customergenerator participates in direct transactions with an ESP that does not provide distribution service for the direct transactions, the ESP, and not PG&E, is obligated to provide net energy metering to the customer.

This rate schedule is available on a first-come, first-served basis to customers that provide PG&E with: (a) a completed Net Energy Metering Application including all supporting documents and required payments; AND (b) a completed signed Net Energy Metering Interconnection Agreement; AND (c) evidence of the customer's final inspection clearance from the governmental authority having jurisdiction over the generating facility; until such time as the total rated generating capacity used by eligible customer-generators exceeds two and one-half (2.5) percent of PG&E's aggregate customer peak demand.

Customers seeking generator interconnections in portions of San Francisco and Oakland where PG&E has a network grid must contact PG&E about generation export limitations.

Schedule NEM applies also to specified net energy metering eligible (NEM-eligible) generators in a generating facility comprised of multiple NEM- and non-NEM-eligible generators, served through the same Point of Common Coupling (PCC), where the NEM-eligible generating capacity is not more than 1 MW. Such facilities will be referred to as Multiple Tariff Facilities, and any group of generators within such a facility that is subject to the same tariff provisions for billing and metering purposes will be referred to as a Constituent Generator Group. In order to be eligible for this rate schedule in a Multiple Tariff Facility, the customer-generator must meet all the requirements of Special Condition 6 for the schedule NEM-eligible generator, and must also meet any other applicable tariffs.

Due to the complexity of Multiple Tariff Facilities NEM generating facilities interconnecting under the provisions of Special Condition 6 may require additional review and/or interconnection facilities and other equipment, and may incur interconnection costs, as provided for in electric Rule 21.

TERRITORY:

The entire territory served.

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Advice Letter No. Decision No. 2888-E-A

Issued by **Brian K. Cherry**Vice President
Regulatory Relations

Cancelling

Revised Revised Cal. P.U.C. Sheet No. Cal. P.U.C. Sheet No.

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SCHEDULE NEM—NET ENERGY METERING SERVICE (Continued)

RATES:

All rates charged under this schedule will be in accordance with the eligible customergenerator's otherwise-applicable metered rate schedule (OAS). An eligible customergenerator served under this schedule is responsible for all charges from its OAS including monthly minimum charges, customer charges, meter charges, facilities charges, demand charges and surcharges. The "Average Rate Limiter" for general service OAS's and all other demand charges will be based on the demand in kilowatts as measured only on the energy being consumed by the customer from PG&E. The power factor, when it applies on the OAS, will be based on the average power factor over the past 12 billing months of operation prior to starting on NEM. Customer-generators without 12 billing months of power factor history, will have their power factor estimated based on the nature of the connected facilities and their hours of operation. Power factor will be subsequently applied to the customer-generator's bill until the customergenerator demonstrates to PG&E's satisfaction that adequate correction had been provided. PG&E will continue to monitor and review the power factor and if warranted, change the power factor correction on the customer-generator's bills. Charges for energy (kWh) supplied by PG&E will be based on the net metered usage in accordance with Billing (Special Condition 2, below).

Customer-generators eligible for service under this schedule are exempt from the requirements of Schedule S—Standby Service except Multiple Tariff Facilities interconnected under the terms of Special Condition 6, may be subject to the requirements of Schedule S.

The charges and credits for Multiple Tariff Facilities taking service on this rate schedule under the provisions of Special Condition 6, will be calculated using the OAS identified by the customer-generator in its application for interconnection and its interconnection agreement with PG&E or as subsequently changed by the customer-generator in accordance with PG&E's Electric Rule 12.

Customer-generators with Multiple Tariff Facilities with existing NEM, NEMBIO and/or NEMFC eligible generators interconnecting additional generators, will receive a bill true-up prior to taking service under Special Condition 6. This ensures that all NEM accounts have the same Relevant Period, as defined in Special Condition 2, going forward.

SUB-SCHEDULES: Eligible customer-generators will be placed on the appropriate sub-schedule as described below:

- NEMS For Small Customer (as defined in Rule 1) customer-generators taking service with solar and/or wind generating facilities, the combined total of which is not more than 10 kW.
- NEMEXP For Small Customer (as defined in Rule 1) customer-generators with solar generating facilities and./or wind generating facilities 50 kW or less, the combined total of which is greater than 10 kW.
- 3 NEMEXPM For all other commercial, industrial customer-generators, and agricultural customers billed monthly under Special Condition 2 with solar generating facilities and/or wind generating facilities 50 kW or less, the combined total of which is greater than 10 kW.
- 4. NEMW For customer-generators with only wind generating facilities greater than 50 kW billed monthly under Special Condition 5 of this tariff.
- NEMMT For customer-generators taking service as a Multiple Tariff Facility under Special Condition 6 of this tariff.

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Advice Letter No. Decision No. 2888-E-A

Issued by **Brian K. Cherry**Vice President
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SCHEDULE NEM—NET ENERGY METERING (Continued)

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SPECIAL CONDITIONS:

METERING: Eligible Wind Energy Co-Metering customer-generators, see Special Condition 5. Multiple Tariff Facilities will be metered under one of the options described in Special Condition 6. All other net energy metering shall be accomplished using a single meter capable of registering the flow of electricity in two directions. If the eligible customer-generator's existing electrical meter is not capable of measuring the flow of electricity in two directions, the eligible customergenerator shall be responsible for all expenses involved in purchasing and installing a meter that is able to measure electricity flow in two directions. An additional meter or meters, installed in a dual meter socket ("dual metering"), to monitor the flow of electricity in each direction may be installed with the consent of the eligible customer-generator, at the expense of PG&E, and the dual metering shall be used only to provide the information necessary to accurately bill or credit the customer according to the utility's OAS or to collect solar or wind, or a hybrid system of both, electric generating system performance information for research purposes. PG&E shall determine whether dual metering is required under this provision. If dual metering is installed, the net energy metering calculation (see below) shall yield a result identical to that of a single meter capable of measuring the flow of electricity in two directions.

PG&E shall not require dual metering except where necessary for billing accuracy. If none of the normal metering options available at PG&E's disposal which are necessary to render accurate billing are acceptable to the customer–generator, PG&E shall have the right to refuse interconnection.

Customer-generators eligible for Special Condition 4 shall not be responsible for replacing, nor be obligated to replace, their existing meter unless the customer-generator's existing electrical meter is not capable of measuring the flow of electricity in two directions.

2. BILLING: Eligible Wind Energy Co-Metering customer-generators, see Special Condition 5, and facilities qualifying under multiple tariffs, see Special Condition 6.

Except as provided in Special Condition 5, for customer-generators taking service on OAS's, any net monthly consumption or production shall be valued as follows:

For an OAS with Baseline Rates

Any net consumption or production shall be valued monthly as follows:

If the eligible customer-generator is a net consumer, the eligible customergenerator will be billed in accordance with the eligible customer-generator's OAS.

If the eligible customer-generator is a net generator, the net kWh generated shall be valued at the rate for the kWh up to the baseline quantity, with any excess kWh generated, valued at the rate for the appropriate tier level in which the equivalent kWh of usage would fall.

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Issued by **Brian K. Cherry**Vice President
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SCHEDULE NEM—NET ENERGY METERING SERVICE (Continued)

SPECIAL CONDITIONS: (Cont'd.)

2. NET ENERGY METERING AND BILLING: (Cont'd.)

b. For an OAS with Time of Use (TOU):

If the eligible customer-generator is a net consumer during any discrete TOU period, the net kWh consumed shall be billed in accordance with that same TOU period in the eligible customer-generator's OAS.

If the eligible customer-generator is a net generator during any discrete TOU period, the net kWh produced shall be valued at the same price per kWh at the same TOU period in the eligible customer generator's OAS.

In the event that at the end of the monthly billing cycle, an eligible customergenerator's net usage for all TOU periods totals zero (i.e. net generation in one or more periods exactly offsets the net usage in all other periods), then the value of usage and/or generation will be calculated using Tier 1 rates (as set forth in the OAS).

c. For an OAS with Minimum Charges:

Eligible customer-generators taking service on residential OAS's, the minimum charges have a customer-related component and an energy-related component. The customer-related component of such minimum charges shall be treated as described in the OAS and billed monthly. The energy (kWh) related component shall be treated in the same manner as energy (kWh) consumed, as described in Section d below, unless otherwise provided for in the OAS.

d. Payment Options:

Eligible Small Customer (as defined in Rule 1) customer generators may pay monthly or annually for the net energy (kWh) consumed. For all other commercial, industrial, and agricultural customers, the net balance of all moneys owed must be paid on each monthly billing cycle; when they are a net electricity producer over a monthly billing cycle, the value of any excess kilowatt-hours generated during the billing cycle shall be carried over to the following billing period and appear as a credit on the customer generator's account, until the end of the Relevant Period.

e. Relevant Period:

A Relevant Period consists of any twelve monthly billing cycles commencing on the date PG&E provides the Customer-Generator with PG&E's written approval to begin parallel operation of the generating facility for purposes of participating in NEM, and on every subsequent anniversary thereof. If an eligible customer-generator terminates service, or experiences a change in ESP prior to the end of any 12 monthly billing cycles the Relevant Period will consist of that period from the anniversary date until the effective date of that termination or ESP change.

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Issued by **Brian K. Cherry**Vice President
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SCHEDULE NEM—NET ENERGY METERING SERVICE (Continued)

SPECIAL CONDITIONS: (Cont'd.)

2. NET ENERGY METERING AND BILLING: (Cont'd.)

Energy True Up:

Net energy is defined as measuring the difference between the energy (kWh) supplied by PG&E through the electric grid to the eligible customer-generator and energy (kWh) generated by an eligible customer-generator and fed back into the electric grid over a Relevant Period. A true up is performed by PG&E at the end of each Relevant Period following the date the customer-generator was first eligible for Schedule NEM, or the date of PG&E's written approval to begin parallel operation of the generating facility for purposes of participating in NEM, whichever is later, and at each anniversary date thereafter. The eligible customer-generator shall be billed for energy (kWh) used during that

In the event the energy (kWh) generated exceeds the energy (kWh) consumed during the Relevant Period, based on the eligible customergenerator's OAS as set forth below, no payment shall be made for the excess energy (kWh) delivered to PG&E's grid. If PG&E is the electric service provider, this condition may be modified where the customer has signed a contract to sell electricity to PG&E.

Once the true-up is completed at the end of the Relevant Period, any overpayment for energy (kWh) from the true-up will be credited to future bill charges.

g. <u>Billing Information:</u>

period.

If PG&E supplies the eligible customer-generator with energy (kWh), PG&E shall provide the eligible customer-generator with net energy (kWh) consumption information with each regular bill. That information shall include the current monetary balance owed PG&E for the net energy (kWh) consumed since the last Relevant Period ended.

h. Energy Service Providers (ESP) Charges:

If PG&E provides direct access (DA) metering for the ESP, UDC consolidated billing (that is, PG&E Consolidated Billing as described on PG&E's Rule 22), or ESP dual or consolidated billing support services for DA customergenerators served under PG&E's rates or their ESP's rates, PG&E may recover the incremental costs related to net energy metering from the customer's ESP as follows:

Metering services: \$104 Metering Service Base charge, plus \$73/hour for onsite work, plus materials.

Billing: \$85/hour plus materials.

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Cal. P.U.C. Sheet No.

SCHEDULE NEM—NET ENERGY METERING SERVICE (Continued)

SPECIAL CONDITIONS: (Cont'd.)

INTERCONNECTION: Prior to receiving approval for Parallel Operation, the customer-generator must submit a completed PG&E application form and interconnection agreement as follows:

APPLICATION

Metering (NEM) for Residential

Customers with Solar or Wind

Electric Generating Facilities of

Application for Net Energy

or Small Commercial

10 Kilowatts or Less,

(Form **79-994**)

AGREEMENT Interconnection Agreement for Net Energy Metering for Residential or Small Commercial Solar or Wind Electric Generating Facilities of 10 Kilowatts or Less,

INTERCONNECTION

NEMEXP Generating Facility

Interconnection Application, (Form 79-974)

Expanded Net Energy Metering (NEM) Supplemental Application Form (Form **79-998**)

Net Energy Metering of Solar or Wind Electric Generating Facilities of 1,000 Kilowatts or Less, other than Residential or Small Commercial Facilities of 10 Kilowatts or Less (Form 79-978)

Interconnection Agreement for

(Form **79-854**)

(same as for NEMEXP)

NEMW (Wind Energy Co-Metering - See Special Condition 5)

NEMEXPM

RATE OPTION

NEMMT (Multiple Tariff Facilities - See Special Condition 6)

(same as for NEMEXP)

(same as for NEMEXP)

(same as for NEMEXP)

(same as for NEMEXP)

Generating Facility Interconnection Agreement (Multiple Tariff) (Form 79-1069)

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2888-E-A

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SCHEDULE NEM—NET ENERGY METERING SERVICE (Continued)

Cancelling

SPECIAL CONDITIONS: (Cont'd.)

INTERCONNECTION: (Cont'd.)

The eligible customer-generator must meet all applicable safety and performance standards established by the National Electrical Code, the Institute of Electrical and Electronics Engineers, and accredited testing laboratories such as Underwriters Laboratories and, where applicable, rules of the California Public Utilities Commission regarding safety and reliability.

- EXEMPTIONS FROM CERTAIN CHARGES: Per Section 2728.7 of the California Public Utilities Code, eligible customer-generators who have all local and state permits required to commence construction of their generating facilities on or before December 31, 2002, and have completed construction on or before September 30, 2003, shall not be required to pay non-bypassable charges on Departing Load including Public Purpose Program charges and shall be entitled to the net energy metering terms in effect on the date the local and state permits were acquired, for the life of the generating facility, regardless of any change in customer or ownership of the generating facility.
- WIND ENERGY CO-METERING: In accordance with Section 2827.8 of the California Public Utilities Code, any customer-generator with wind energy generating facilities greater than 50 kW but not exceeding 1,000 kW taking service under this tariff is required to do so pursuant to this section. An eligible customergenerator's hybrid system that includes a wind generating facility eligible under this schedule is considered a Multiple Tariff Facility and will be interconnected subject to Special Condition 6.

Wind Energy Co-Metering customer-generators are required to take service on a time-of-use (TOU) OAS. In addition, the customer-generator must utilize a TOU meter, or multiple TOU meters, capable of separately measuring the electricity in both directions, that is, the energy (kWh) supplied by PG&E to the customer and the energy (kWh) generated by the customer and fed back to the electric grid. If the customer's existing meter is not a TOU meter or is not capable of separately measuring the flow of electricity in both directions, the eligible customer-generator is responsible for all expenses involved in purchasing and installing a meter that is both TOU and able to separately measure electricity flow in both directions.

Subject to Special Condition 2, the generation of electricity provided to PG&E by a Wind Energy Co-Metering customer-generator shall result in a credit to the eligible customer-generator priced in accordance with the generation component of the energy charge of the eligible customer-generator's OAS, excluding generation surcharges from Schedule E-EPS, or any successor rate schedule. All electricity supplied to the Wind Energy Co-Metering customer-generator by PG&E shall be priced in accordance with the customer-generator's OAS.

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2888-E-A

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Cal. P.U.C. Sheet No.

SCHEDULE NEM—NET ENERGY METERING SERVICE (Continued)

SPECIAL CONDITIONS: (Cont'd.)

WIND ENERGY CO-METERING (Cont'd):

At the end of each Relevant Period (as described in Special Condition 2), if the energy (kWh) fed back to the electric grid by the eligible customer-generator exceeds the energy (kWh) supplied to the eligible customer-generator by PG&E. the eligible customer-generator is a Wind Energy Co-Metering producer; (otherwise the eligible customer-generator is a Wind Energy Co-Metering consumer). The Eligible Generation Credit for a Wind Energy Co-Metering consumer or Wind Energy Co-metering producer equals the lesser of: (1) all net generation charges for the 12-month period; or (2) the absolute value of all net generation credits for the 12-month period.

MULTIPLE TARIFF FACILITIES:

(T)

(T)

(N)

(N)

Multiple Tariff Facilities have the following additional provisions:

- When Net Generation Output Metering (NGOM) is required, such NGOM must conform to the requirements set forth in Electric Rule 21, Section F.
- A NEM-eligible Constituent Generator Group is defined as a constituent b. generator group that is eligible for service under the provisions of either schedule NEM, NEMBIO or NEMFC or their sub-schedules.
- A non-NEM-eligible Constituent Generator Group is defined as a constituent generator group that does not take service under the provisions of schedules NEM, NEMBIO or NEMFC, but interconnects under the provisions of Electric Rule 21.
- All metering for Multiple Tariff Facilities called for in this special condition must meet the requirements needed to bill under the customer-generator's OAS. All metering, equipment and Non Export relays necessary to implement the provisions in this section will be provided at the Customer-Generator's expense.
- Any generators eligible for tariff NEMBIOA (accounts with the loads from eligible accounts aggregated on the main NEMBIO account pursuant to Special Condition 4 of the NEMBIO tariff) will be treated as a separate Constituent Generator Group.

(Continued)

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Cancelling

Cal. P.U.C. Sheet No.

SCHEDULE NEM—NET ENERGY METERING SERVICE (Continued)

SPECIAL CONDITIONS: (Cont'd.)

6. MULTIPLE TARIFF FACILITIES (Cont'd):

(N)

(N)

- f. Where multiple NEM-eligible Constituent Generator Groups are present, and energy (kWh) is exported to the grid at the PCC, the billing credit will be based upon the proportional contribution of the energy production (kWh) of each NEM-eligible Constituent Generator Group over the billing period as follows:
 - 1) Sum all NEM-eligible Constituent Generator Groups' NGOM readings.
 - Determine the proportion of energy (kWh) attributable to each NEMeligible Constitute Generator Group by dividing the NGOM reading of each by the sum from (1) above.
 - NEM-eligible Export is the lesser of either all exported energy (kWh) as measured at the PCC or the sum of the energy (kWh) per (1) above.
 - Take the NEM-eligible Export and assign it to each NEM-eligible Constituent Generator Group based on its respective proportion of NGOM reading.
 - 5) Determine the bill credit for the customer-generator as provided under the customer-generator's OAS in combination with the net energy metering tariff billing treatment type for each NEM-eligible Constituent Generator Group.
 - 6) If interval metering is chosen per Special Condition 6(g)(2)(c) of this special condition, this allocation of bill credit will be done on the aggregated intervals over a billing period. If the OAS is a time-of-use (TOU) rate schedule, the allocation will be performed for each aggregated TOU period separately.
 - Generating Facilities including only small wind (50 kW or less) and solar generators are not Multiple Tariff Facilities and the customer-generator will be billed as provided in Special Condition 2 of this tariff.

(Continued)

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Issued by **Brian K. Cherry**Vice President
Regulatory Relations

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Cal. P.U.C. Sheet No.

SCHEDULE NEM—NET ENERGY METERING SERVICE (Continued)

SPECIAL CONDITIONS: (Cont'd.)

MULTIPLE TARIFF FACILITIES (Cont'd):

(N)

- Multiple Tariff Facility Configurations and Metering.
 - For two or more types of NEM-eligible Constituent Generator Groups, the customer-generator must select one of the following options:
 - Install NGOM on each Constituent Generator Group. In addition, metering is required at the PCC capable of separately registering the flow of energy (kWh) in two directions. Billing credit will be calculated as provided for in Special Condition 6(f). Generation Rate Component charges are the charges for energy (kWh) used based on the generation rate component of the energy charge under the customer-generator's rate schedule(s). Billing credit will be applied consistent with the appropriate net metering tariff as follows:

Original

- i. First, apply NEMBIO credits (if any) to Generation Rate Component charges on any aggregated accounts, and then to Generation Rate Component charges on the account served by the generating facility (Host Account).
- Second, apply NEMFC credits (if any) to Generation Rate Component charges on the account served by the generating facility.
- iii. Third, apply NEM credits (if any) as appropriate to the remainder of energy charges on the account served by the generating facility.
- If the customer-generator has no Constituent Generator Group(s) eligible for Schedule NEMBIOA, but has a Constituent Generator Group eligible for Schedule NEM for small wind (50 kW or less) and/or solar generators, the customer-generator may elect to take service for such under either NEM sub-schedule NEMW or Schedule NEMBIO or NEMFC, as appropriate to one of the other Constituent Generator Group(s).

(Continued)

(N)

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Issued by Brian K. Cherry Vice President Regulatory Relations

SCHEDULE NEM—NET ENERGY METERING SERVICE (Continued)

SPECIAL CONDITIONS: (Cont'd.)

MULTIPLE TARIFF FACILITIES (Cont'd):

(N)

Multiple Tariff Facility Configurations and Metering. (Cont'd)

Cancelling

- For both, NEM-Eligible and non-NEM Eligible Constituent Generator Groups, the Customer-Generator must select one of the following options:
 - i. The Non Export Relay Option: A Customer-Generator must install a Non-Export relay on their non-NEM Constituent Generator Groups and install metering as follows: 1) If there is only one type of NEM-eligible Constituent Generator Group then metering at the PCC is all that is required and the terms of the appropriate NEM tariff for that group will apply; 2) If there are two or more types of NEM-Eligible Constituent Generator Groups, then Metering at the PCC and NGOM metering of each NEM-Eligible Constituent Generator Group is required. The requirements of Special Condition 6(f) and 6(g) apply.
 - The Load Metering Option: The customer-generator must install NGOM on each NEM-Eligible Constituent Generator Group, install energy consumption metering at the load, and install metering at the PCC as follows: 1) If there is one type of NEM-Eligible Constituent Generator Group then the terms of the appropriate NEM tariff for that group will apply; 2) If there are two or more types of NEM-Eligible Constituent Generator Groups, then the terms of Special Condition 6(f) and 6(g) apply.
 - The Interval Meter Option: The customer-generator must install interval NGOM on each NEM-Eligible Constituent Generator Group and install interval metering at the PCC as follows: 1) If there is one type of Constituent Generator Group then the terms of the appropriate NEM tariff for that group will apply; 2) If there are two or more types of NEM-Eligible Constituent Generator Groups, then the terms of Special Condition 6(f) and 6(g) for interval metering apply. Energies (kWh) generated in an interval are aggregated over a billing period according to the OAS.

(Continued)

(N)

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(D)

(N)

(N)

SCHEDULE NEMFC—NET ENERGY METERING SERVICE FOR FUEL CELL CUSTOMER-GENERATORS

APPLICABILITY:

This schedule is applicable to Bundled Service Customers who are served under a Time-of-Use (TOU) rate schedule, and who (1) interconnect and operate in parallel with PG&E's electrical system an Eligible Fuel Cell Electrical Generating Facility, as defined below, with a generating capacity no greater than 1,000 kW, located on or adjacent to the customers' owned, leased or rented premises, (2) is interconnected and operates in parallel with PG&E grid while the grid is operational, and is sized to offset part or all of the Customers' electrical requirements, (3) are the recipient of local, state, or federal funds, or who self-finance projects designed to encourage the development of Eligible Fuel Cell Electrical Generating Facilities, and (4) use technology that meets the definition of an "ultra-clean and low-emission distributed generation," pursuant to California Public Utilities Code Section 353.2 (PU Code Section 353.2). Such a customer will be referred to hereafter as a "Fuel Cell Customer-Generator." Customers eligible for service under this schedule are exempt from any new or additional charges not included in their Otherwise Applicable Schedule (OAS).

The Eligible Fuel Cell Generating Facility is defined as a generating facility that meets all applicable safety and performance standards in accordance with PG&E's Electric Rule 21 and pursuant to PU Code Section 2827.10 includes 1) an integrated powerplant systems containing a stack, tubular array, or other functionally similar configuration used to electrochemically convert fuel to electric energy; 2) an inverter and fuel processing system where necessary, and 3) other plant equipment, including heat recovery equipment necessary to support the plant's operation or its energy conversion.

Customers seeking generator interconnections in portions of San Francisco and Oakland where PG&E has a network grid must contact PG&E about generation export limitations.

Pursuant to PU Code Section 2827.10, this schedule is available on a first-come, first-serve basis and will be closed to new customers once 45 MW of cumulative rated generating capacity is served under this schedule.

Customers seeking preference for eligibility under this rate shall file an application with the CPUC to establish that their facilities are located in a community with significant exposure to air contaminants, or localized air contaminants, or both, including but not limited to communities of minority populations or low-income populations, or both, based on the ambient air quality standards established pursuant to Section 39607 of the Health and Safety Code. The CPUC shall determine how such preference shall be implemented. In no event shall such an application, if granted, cause the cumulative rated generating capacity served by PG&E under this schedule to exceed 45 MW.

A fuel cell electrical generating facility shall not be eligible for participation in the NEMFC tariff unless it commenced operation before January 1, 2010. A fuel cell customergenerator shall be eligible for the tariff established herein only for the operating life of the Eligible Fuel Cell Electrical Generating Facility.

Schedule NEMFC applies also to specified Net Energy Metering-eligible (NEM-eligible) generators in a generating facility comprised of multiple NEM and non-NEM Eligible generators, served through the same Point of Common Coupling (PCC), where the NEM-eligible generating capacity is not more than 1 MW. Such facilities will be referred to as Multiple Tariff Facilities, and any group of generators within such a facility that is subject to the same tariff provisions for billing and metering purposes will be referred to as a Constituent Generator Group. In order to be eligible for this rate schedule in a Multiple Tariff Facility, the customer-generator must meet all the requirements of Special Condition 5 for the Schedule NEMFC eligible generator, and must also meet any other applicable tariffs.

(Continued)

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Cancelling

SCHEDULE NEMFC—NET ENERGY METERING SERVICE FOR FUEL CELL CUSTOMER-GENERATORS

APPLICABILITY:

(cont'd)

Due to the complexity of Multiple Tariff Facilities, NEMFC generating facilities interconnecting under the provisions of Special Condition 5 may require additional review and/or interconnection facilities and other equipment, and may incur

interconnection costs, as provided for in electric Rule 21.

TERRITORY:

The entire territory served.

RATES:

Only the Generation Rate Component of the energy charge of the Fuel Cell Customer-Generator's OAS ("Generation Rate Component"), without generation surcharges such as those from Schedule E-EPS or any successor rate schedule, if any, shall be used in the calculation of credits when the Fuel Cell Customer-Generator is a net energy producer, on a monthly basis, for any TOU period. Only the Generation Rate Component of the Fuel Cell Customer-Generator's OAS, including any and all

generation surcharges, if any, shall be used to calculate the charge for generation when the Fuel Cell Customer-Generator is a Net Energy consumer on a monthly basis, for any TOU period. All other charges, including but not limited to, Transmission Charges, Distribution Charges, Monthly Customer Charges, Minimum Charges, Demand Charges, and non-energy related charges, shall be calculated according to the Fuel Cell Customer-Generator's OAS for all energy supplied by PG&E prior to the netting of

energy charges and credits.

The charges and credits for Multiple Tariff Facilities taking service on this rate schedule under the provisions of Special Condition 5 will be calculated using the OAS identified by the customer-generator in its application for interconnection and its interconnection agreement with PG&E or as subsequently changed by the customer-generator in

accordance with PG&E's Electric Rule 12.

Customers-generators with Multiple Tariff Facilities with existing NEM, NEMBIO and/or NEMFC eligible generators, interconnecting additional generators will receive a bill true-up, prior to taking service under Special Condition 5. This ensures that all NEM accounts have the same Relevant Period, as defined in Special Condition 2, going

forward.

SUB-SCHEDULE:

Eligible Customer-Generators will be placed on Rate Schedule NEMFC, unless they are

applying for service under the provisions of the following sub-schedule:

NEMMT – For customer-generators taking service as a Multiple Tariff Facility under Special Condition 5 of this tariff

(N)

(Continued)

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(N)

(N)

(N)

(N) (D)

SCHEDULE NEMFC—NET ENERGY METERING SERVICE FOR FUEL CELL CUSTOMER-GENERATORS (Continued)

Cancelling

SPECIAL (D) CONDITIONS:

1. METERING: (T)

- a. Fuel cell Net Energy metering shall be accomplished using a TOU meter capable of separately registering the flow of electricity in two directions. If the Fuel Cell Customer-Generator's existing meter is not capable of separately measuring the flow of electricity in two directions, the Fuel Cell Customer-Generator shall be responsible for all expenses involved in purchasing and installing a meter that is able to separately measure electricity flow in two directions. If dual metering is installed, the Net Energy metering calculation shall yield a result identical to that of a single meter capable of separately measuring the flow of electricity in two directions.
- b. If none of the normal metering options at PG&E's disposal that are necessary to render accurate billing are acceptable to the Fuel Cell Customer-Generator, PG&E shall have the right to refuse service under this rate schedule.
- Multiple Tariff Facilities will be metered under one of the options described in Special Condition 5.
- 2. BILLING: Fuel Cell Customer-Generator will be billed monthly for all charges other than Generation Rate Component. With each monthly billing statement, PG&E shall provide the Fuel Cell Customer-Generator with information regarding energy (kWh) consumption and energy (kWh) exports.

At the end of each Relevant Period, PG&E shall perform a Reconciliation. A Relevant Period consists of any twelve monthly billing cycles commencing on the date PG&E provides the Customer-Generator with PG&E's written approval to begin parallel operation of the generating facility for purposes of participating in NEMFC, and on every subsequent anniversary thereof. If an eligible customergenerator terminates service prior to the end of any 12 monthly billing cycles the Relevant Period will consist of that period from the anniversary date until the effective date of that termination.

The Reconciliation shall be performed as follows:

NEMFC customer-generators will receive a bill that totals 1) all Generation Rate Component charges for the Relevant Period; 2) all Eligible Generation Credits for the Relevant Period; and 3) all other charges, due in that billing cycle of the Relevant Period.

The "Eligible Generation Credit" equals the lesser of 1) all monthly Generation Rate Component charges for the Relevant Period; or 2) the absolute value of all monthly Eligible Generation Credit for the Relevant Period. Any excess credit that exceeds the Eligible Generation Credit will be retained by PG&E and the customer will not be owed any compensation for this excess.

(Continued)

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Schedule S.

Cancelling

Cal. P.U.C. Sheet No.

SCHEDULE NEMFC—NET ENERGY METERING SERVICE FOR FUEL CELL CUSTOMER-GENERATORS (Continued)						
SPECIAL CONDITIONS: (Cont'd.)	3.	INTERCONNECTION: Prior to receiving approval for Parallel Operation, the customer-generator must submit a completed PG&E application form and interconnection agreement as follows:				
		SUB-SCHEDULE	APPLICATION	INTERCONNECTION AGREEMENT		
	NEM	MFC	Generating Facility Interconnection Application, (Form 79-974)	Interconnection Agreement for Net Energy Metering of Eligible Fuel Cell Facilities (Form 79-1010)		
	NEMMT (Multiple Tariff Facilities – See Special Condition 5)		(same as for NEMFC)	Generating Facility Interconnection Agreement (Multiple Tariff) (Form 79-1069)	 (N)	
	4. STANDBY CHARGES: Consistent with electric Rate Schedule S – Standby Service, to the extent that charges for transmission and distribution services are recovered through demand charges in any billing period, no standby charges shall apply in that monthly billing cycle, except Multiple Tariff Facilities interconnected under the terms of Special Condition 5, may be subject to the requirements of Schedule S.				(L) - (L) (X) (X)	

(Continued)

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(Cont'd.)

SCHEDULE NEMFC—NET ENERGY METERING SERVICE FOR FUEL CELL CUSTOMER-GENERATORS (Continued)

Cancelling

SPECIAL CONDITIONS:

MULTIPLE TARIFF FACILITIES:

(D) (N)

Multiple Tariff Facilities have the following additional provisions:

- When Net Generation Output Metering (NGOM) is required, such NGOM must conform to the requirements set forth in Electric Rule 21, Section F.
- A NEM-eligible Constituent Generator Group is defined as a constituent generator group that is eligible for service under the provisions of either schedule NEM, NEMBIO or NEMFC or their sub-schedules.
- c. A non-NEM-eligible Constituent Generator Group is defined as a constituent generator group that does not take service under the provisions of schedules NEM, NEMBIO or NEMFC, but interconnects under the provisions of Electric Rule 21.
- d. All metering for Multiple Tariff Facilities called for in this special condition must meet the requirements needed to bill under the customer-generator's OAS. All metering equipment and Non Export relays necessary to implement the provisions in this section will be provided at the Customer-Generator's expense.
- e. Any generators eligible for tariff NEMBIOA (accounts with the loads from eligible accounts aggregated on the main NEMBIO account pursuant to Special Condition 4 of the NEMBIO tariff) will be treated as a separate Constituent Generator Group.
- Where multiple NEM-eligible Constituent Generator Groups are present, and energy (kWh) is exported to the grid at the PCC, the billing credit will be based upon the proportional contribution of the energy production (kWh) of each NEM-eligible Constituent Generator Group over the billing period as follows:
 - 1) Sum all NEM-eligible Constituent Generator Groups' NGOM readings.
 - Determine the proportion of energy (kWh) attributable to each NEMeligible Constitute Generator Group by dividing the NGOM reading of each by the sum from (1) above.
 - NEM-eligible Export is the lesser of either all exported energy as measured at the PCC or the sum of the energy per (1) above.
 - Take the NEM-eligible Export and assign it to each NEM-eligible Constituent Generator Group based on its respective proportion of NGOM reading.

(N)

(Continued)

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SCHEDULE NEMFC—NET ENERGY METERING SERVICE FOR FUEL CELL CUSTOMER-GENERATORS (Continued)

Cancelling

SPECIAL CONDITIONS: (Cont'd.)

MULTIPLE TARIFF FACILITIES: (Cont'd)

(D)

5) Determine the bill credit for the customer-generator as provided under the customer-generator's OAS in combination with the net energy metered tariff billing treatment type for each NEM-eligible Constituent Generator Group. (N)

- 6) If interval metering is chosen per, Special Condition 5(g)(2)(c) below, this allocation of bill credit will be done on the aggregated intervals over a billing period. If the OAS is a time-of-use (TOU) rate schedule, the allocation will be performed for each aggregated TOU period separately.
- g. Multiple Tariff Facility Configurations and Metering.
 - 1) For two or more types of NEM-eligible Constituent Generator Groups, the customer-generator must select one of the following options:
 - a) Install NGOM on each Constituent Generator Group. In addition, metering is required at the PCC capable of separately registering the flow of energy (kWh) in two directions. Billing credit will be calculated as provided for in Special Condition 5(f). Billing credit will be applied consistent with the appropriate net metering tariff as follows:
 - First, apply NEMBIO credits (if any) to Generation Rate Component charges on any aggregated accounts, and then to Generation Rate Charges on account served by the generating facility (Host Account).
 - Second, apply NEMFC credits (if any) to Generation Rate Component charges on the account served by the generating facility.
 - Third, apply NEM credits (if any) as appropriate to the remainder of the energy charges on the account served by the generating facility.
 - b) If the customer-generator has no Constituent Generator Group(s) eligible for Schedule NEMBIOA, but has a Constituent Generator Group eligible for Schedule NEM for small wind (50 kW or less) and/or solar generators, the customer–generator may elect to take service for such under either NEM Sub-schedule NEMW or Schedule NEMBIO or NEMFC, as appropriate to one of the other Constituent Generator Group(s).

(Continued)

(N)

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SCHEDULE NEMFC—NET ENERGY METERING SERVICE FOR FUEL CELL CUSTOMER-GENERATORS (Continued)

SPECIAL CONDITIONS: (Cont'd.)

MULTIPLE TARIFF FACILITIES: (Cont'd)

(D)

g. Multiple Tariff Facility Configurations and Metering (Cont'd)

(N)

- 2) For both, NEM-eligible and non-NEM-eligible Constituent Generator Groups, the Customer-Generator must select one of the following options:
 - a) The Non Export Relay Option: A customer-generator must install a non-export relay on their non-NEM Constituent Generator Groups and install metering as follows: 1) If there is only one type of Constituent Generator Group then metering at the PCC is all that is required and the terms of the appropriate NEM tariff for that group will apply; 2) If there are two or more types of NEM-eligible Constituent Generator Groups, then Metering at the PCC and NGOM metering of each NEM-eligible Constituent Generator Group is required. The requirements of Special Condition 5(f) and 5(g) apply.
 - b) The Load Metering Option: The customer-generator must install NGOM on each NEM-eligible Constituent Generator Group, install energy consumption metering at the load, and install metering at the PCC as follows: 1) If there is one type of NEM-eligible Constituent Generator Group then the terms of the appropriate NEM tariff for that group will apply; 2) If there are two or more types of NEM-eligible Constituent Generator Groups, then the terms of Special Condition 5(f) and 5(g) apply.
 - riterval Meter Option: The customer-generator must install interval NGOM on each NEM-eligible Constituent Generator Group and install interval metering at the PCC as follows: 1) If there is one type of Constituent Generator Group then the terms of the appropriate NEM tariff for that group will apply; 2) If there are two or more types of NEM-eligible Constituent Generator Groups, then the terms of Special Condition 5(f) and 5(g) for interval metering apply. Energies (kWh) generated in an interval are aggregated over a billing period according to the OAS.

(N)

(T)

(N)

(T)

(N)

(N)

SCHEDULE NEMBIO—NET ENERGY METERING SERVICE FOR BIOGAS CUSTOMER-GENERATORS

APPLICABILITY:

This schedule is applicable to Bundled Service Customers who are served under a Time-of-Use (TOU) rate schedule, and who (1) interconnect and operate in parallel with PG&E's electrical system an Eligible Biogas Digester Electrical Generating Facility, as defined below, with a generating capacity no greater than 1,000 kW, located on or adjacent to the Biogas Customer-Generators' premises intended to offset part or all of the Biogas Customer-Generators' electrical requirements, and (2) are the recipient of local, state, or federal funds, or who self-finance projects designed to encourage the development of Biogas Digester Electrical Generating Facilities (Biogas Customer-Generator). Customers eligible for service under this Schedule are exempt from any new or additional charges not included in their Otherwise Applicable Schedule (OAS).

Cancelling

An Eligible Biogas Digester Electrical Facility is defined as a generating facility that meets all applicable safety and performance standards in accordance with PG&E's Electric Rule 21 and pursuant to California Public Utilities Code Section 2827.9 (PU Code Section 2827.9) produces electricity by a manure methane production project or as a byproduct of the anaerobic digestion of bio-solids and animal waste.

Pursuant to PU Code Section 2827.9, this Schedule is available on a first-come, first-serve basis and will be closed to new customers once the combined statewide cumulative rated generating capacity used by the eligible biogas digester customergenerators in the service territories of the three largest electrical corporations in the state reaches 50,000 kW. No Biogas Customer-Generator shall be eligible for participation on NEMBIO that has not commenced operation by December 31, 2009. A biogas digester customer-generator shall be eligible for the tariff established pursuant to this section, only for the operating life of the Biogas Customer-Generator.

Notwithstanding the generating capacity limit of up to 1,000 kW, in the service territories of the three largest electrical corporations in the state, up to three large Biogas Customer-Generators with a generating capacity of more than 1,000 kW and not more than 10,000 kW, otherwise meeting the criteria above, shall be eligible for NEMBIO.

Customers seeking generator interconnections in portions of San Francisco and Oakland where PG&E has a network grid must contact PG&E about generation export limitations.

As required by PU Code Section 2827.9, no Biogas Customer-Generator that is subject to the best available control technology (BACT) requirements shall be eligible for participation in NEMBIO unless the Biogas Customer-Generator has installed the best available control technology as required by the regional air pollution control district at the time of installation to ensure the maximum feasible reductions in toxic and criteria pollutants.

Schedule NEMBIO applies also to specified Net Energy Metering-eligible (NEM-Eligible) generators in a generating facility comprised of multiple NEM- and non-NEM-eligible generators, served through the same Point of Common Coupling (PCC), where the NEM-eligible generating capacity is not more than 1 MW. Such facilities will be referred to as Multiple Tariff Facilities, and any group of generators within such a facility that is subject to the same tariff provisions for billing and metering purposes will be referred to as a Constituent Generator Group. In order to be eligible for this rate schedule in a Multiple Tariff Facility, the customer-generator must meet all the requirements of Special Condition 6 for the Schedule NEMBIO eligible generator, and must also meet all other applicable tariffs.

Due to the complexity of Multiple Tariff Facilities NEMBIO, generating facilities interconnecting under the provisions of Special Condition 6 may require additional review and/or interconnection facilities and other equipment, and may incur interconnection costs, as provided for in electric Rule 21.

(Continued)

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Issued by **Brian K. Cherry**Vice President
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SCHEDULE NEMBIO—NET ENERGY METERING SERVICE FOR BIOGAS CUSTOMER-GENERATORS The entire territory served. TERRITORY: (L) RATES: Only the generation rate component of the energy charge of the Biogas Customer-Generator's OAS ("Generation Rate Component"), without generation surcharges such as those from Schedule E-EPS or any successor rate schedule, if any, shall be used in the calculation of credits when the Biogas Customer-Generator is a net energy producer, on a monthly basis, for any TOU period. Only the Generation Rate Component of the Biogas Customer-Generator's OAS, including all generation surcharges, if any, shall be used to calculate the charge for generation when the Biogas Customer-Generator is a Net Energy consumer on a monthly basis, for any TOU period. All other charges, including but not limited to, Transmission Charges, Distribution Charges, Monthly Customer Charges, Minimum Charges, Demand Charges, and non-energy related charges, shall be calculated according to the Customer-Generator's (T) OAS for all energy (kWh) supplied by PG&E prior to the netting of energy charges and (L) (T) credits. (N) The charges and credits for Multiple Tariff Facilities taking service on this rate schedule under the provisions of Special Condition 6 will be calculated using the OAS identified by the customer-generator in its application for interconnection and its interconnection agreement with PG&E or as subsequently changed by the customer-generator in accordance with PG&E's Electric Rule 12. Customer-generators with Multiple Tariff Facilities with existing NEM, NEMBIO and/or NEMFC eligible generators interconnecting additional generators, will receive a bill trueup, prior to taking service under Special Condition 6. This ensures that all NEM accounts have the same Relevant Period, as defined in Special Condition 2, going (N) forward. (D) SUB-Eligible Customer-Generators will be placed on Rate Schedule NEMBIO, unless they are (N) SCHEDULES: applying for service under the provisions of one of the following sub-schedules: NEMBIOA - For Customer-Generators taking service under the provisions of Special Condition 4—LOAD AGGREGATION **NEMMT** – For Customer-Generators taking service as a Multiple Tariff Facility under Special Condition 6 of this tariff (N)

(Continued)

Advice Letter No. Decision No. 2888-E-A

Issued by **Brian K. Cherry**Vice President
Regulatory Relations

OCHEDOLE NEI	VIDIO	IVE	ENERGY METERING SERVICE FOR BIOGAS CUSTOMER-GENERATORS (Continued)	
SPECIAL CONDITIONS:	1.	MET	TERING:	(D) (L) (T)
		a.	Biogas Digester Net Energy metering shall be accomplished using a TOU meter capable of separately registering the flow of electricity in two directions. If the Biogas Customer-Generator's existing meter is not capable of separately measuring the flow of electricity in two directions, the Biogas Customer-Generator shall be responsible for all expenses involved in purchasing and installing a meter that is able to separately measure electricity flow in two directions. If dual metering is installed, the Net Energy metering	(T) (T)
		b.	calculation shall yield a result identical to that of a single meter capable of separately measuring the flow of electricity in two directions. If none of the normal metering options at PG&E's disposal that are necessary to render accurate billing are acceptable to the Biogas Customer-Generator, PG&E shall have the right to refuse interconnection under this rate schedule.	(T)
		C.	Dairy operations with service accounts that qualify for Special Condition 4 are required to meet the provisions of Special Conditions 1.a and 1.b for the account serving the Eligible Biogas Digester Electrical Generating Facility only; all other service accounts are only required to have the metering specified in the TOU rate schedule on which it is billed.	(T) (T)
		d.	Multiple Tariff Facilities will be metered under one of the options described in Special Condition 6.	(N) (N)
				(L)

(Continued)

Advice Letter No. Decision No.

2888-E-A

Issued by **Brian K. Cherry** Vice President Regulatory Relations

SCHEDULE NEMBIO—NET ENERGY METERING SERVICE FOR BIOGAS CUSTOMER-GENERATORS (Continued)

SPECIAL CONDITIONS:

 BILLING: Biogas Customer-Generator will be billed monthly for all charges other than the Generation Rate Component charges on all eligible Aggregated Metered Service Accounts. With each monthly billing statement PG&E shall provide the Biogas Customer-Generator with information regarding energy (kWh) consumption and energy (kWh) exported.

(N) (L) | |

(T)

(L)

At the end of each Relevant Period, PG&E shall perform a Reconciliation. A Relevant Period consists of any twelve monthly billing cycles commencing on the date PG&E provides the Customer-Generator with PG&E's written approval to begin parallel operation of the generating facility for purposes of participating in NEMBIO, and on every subsequent anniversary thereof. If an eligible customergenerator terminates service prior to the end of any 12 monthly billing cycles the Relevant Period will consist of that period from the anniversary date until the effective date of that termination.

The Reconciliation shall be performed as follows:

a. NEMBIO customer-generators will receive a bill that totals 1) all Generation Rate Component charges for the Relevant Period; 2) all Eligible Generation Credits for the Relevant Period; and 3) all other charges due in that billing cycle of the Relevant Period.

The "Eligible Generation Credit" equals the lesser of 1) all monthly Generation Rate Component charges for the Relevant Period, including in the case of a dairy operation the Generation Rate Component charges associated with accounts eligible for Special Condition 4; or 2) the absolute value of all monthly Eligible Generation Credits for the Relevant Period. Any excess credit that exceeds the Eligible Generation Credit for the Relevant Period will be retained by PG&E and the customer will not be owed any compensation for this excess.

For non-dairy operations with no Load Aggregation as defined in Special Condition 4, only the account serving the Eligible Biogas Digester Generating Facility is used to determine Generation Rate Component charges.

For dairy operations with Load Aggregation as defined in Special Condition 4, the Generation Rate Component charges for the usage from all the Eligible Service Accounts is used to determine the Eligible Generation Credit.

b. In the case of Load Aggregation for dairy operations, defined in Special Condition 4, each Eligible Service Account will be billed for Generation Rate Component charges, based on the rate schedule for the particular service account, at the end of the Relevant Period, or sooner if the account closes or is no longer eligible for Load Aggregation.

(N)

(Continued)

Advice Letter No. Decision No. 2888-E-A

Issued by **Brian K. Cherry**Vice President
Regulatory Relations

Cal. P.U.C. Sheet No.

SCHEDULE NEMBIO—NET ENERGY METERING SERVICE FOR BIOGAS CUSTOMER-GENERATORS (Continued)								
SPECIAL CONDITIONS: (Cont'd.)	 INTERCONNECTION: Prior to receiving approval for Parallel Operation, the customer-generator must submit a completed PG&E application form and interconnection agreement as follows: 							
	SUB-SCEHDULE	APPLICATION	INTERCONNECTION AGREEMENT					
	NEMBIO	Generating Facility Interconnection Application, (Form 79-974)	Interconnection Agreement for Net Energy Metering of Eligible Biogas Digester Generating Facilities, (Form 79-997)					
	NEMBIOA	(same as for NEMBIO)	(same as for NEMBIO but with Appendix C completed listing aggregated TOU load accounts)	 				
	NEMMT (Multiple Tariff Facilities – See Special Condition 6)	(same as for NEMBIO)	Generating Facility Interconnection Agreement (Multiple Tariff) (Form 79-1069)	 (N)				

(Continued)

Advice Letter No. Decision No.

2888-E-A

Issued by Brian K. Cherry Vice President Regulatory Relations

SCHEDULE NEMBIO—NET ENERGY METERING SERVICE FOR BIOGAS CUSTOMER-GENERATORS (Continued)

SPECIAL CONDITIONS: (Cont'd.)

4. LOAD AGGREGATION: PG&E shall aggregate the load of TOU service accounts of dairy operations that are located on property adjacent, or contiguous, to the Eligible Biogas Digester Electrical Generating Facility including but not limited to accounts associated with the milking operations, milk refrigeration, or water pumping ("Eligible Service Account"). If a dairy operation has more than one Eligible Service Account, all such service accounts must be under the same ownership and Biogas Customer-Generator name as the account serving the Eligible Biogas Digester Electrical Generating Facility.

5. STANDBY CHARGES: Consistent with electric Rate Schedule S – Standby Service, to the extent that charges for transmission and distribution services are recovered through demand charges in any billing period, no standby charges shall apply in that monthly billing cycle except Multiple Tariff Facilities interconnected under the terms of Special Condition 6, may be subject to the requirements of Schedule S.

(T) (T)

6. MULTIPLE TARIFF FACILITIES:

(D) (N)

Multiple Tariff Facilities have the following additional provisions:

- When Net Generation Output Metering (NGOM) is required, such NGOM must conform to the requirements set forth in Electric Rule 21, Section F.
- A NEM-eligible Constituent Generator Group is defined as a constituent generator group that is eligible for service under the provisions of either schedule NEM, NEMBIO or NEMFC or their sub-schedules.
- c. A non-NEM-eligible Constituent Generator Group is defined as a constituent generator group that does not take service under the provisions of schedules NEM, NEMBIO or NEMFC, but interconnects under the provisions of Electric Rule 21.
- d. All metering for Multiple Tariff Facilities called for in this special condition must meet the requirements needed to bill under the customer-generator's OAS. All metering equipment and Non Export relays necessary to implement the provisions in this section will be provided at the Customer-Generator's expense.
- e. Any generators eligible for tariff NEMBIOA (accounts with the load from Eligible Service Accounts aggregated on the main NEMBIO account pursuant to Special Condition 4) will be treated as a separate Constituent Generator Group.

(N)

(Continued)

Advice Letter No. Decision No.

2888-E-A

Issued by **Brian K. Cherry**Vice President
Regulatory Relations

SCHEDULE NEMBIO—NET ENERGY METERING SERVICE FOR BIOGAS CUSTOMER-GENERATORS (Continued)

Cancelling

SPECIAL CONDITIONS: (Cont'd.)

MULTIPLE TARIFF FACILITIES: (Cont'd.)

(D) (N)

- Where multiple NEM-eligible Constituent Generator Groups are present, and energy (kWh) is exported to the grid at the PCC, the billing credit will be based upon the proportional contribution of the energy production (kWh) of each NEM-eligible Constituent Generator Group over the billing period as follows:
 - 1) Sum all NEM-eligible Constituent Generator Groups' NGOM reading.
 - Determine the proportion of energy (kWh) attributable to each NEM-2) eligible Constitute Generator Group by dividing the NGOM reading of each by the sum from (1) above.
 - NEM-eligible Export is the lesser of either all exported energy (kWh) as measured at the PCC or the sum of the energy (kWh) per (1) above.
 - Take the NEM-eligible Export and assign it to each NEM-eligible Constituent Generator Group based on its respective proportion of NGOM reading.
 - Determine the bill credit for the customer-generator as provided under the customer-generator's OAS in combination with the net energy metered tariff billing treatment type for each NEM-eligible Constituent Generator Group.
 - If interval metering is chosen per, Special Condition 6(g)(2)(c) below, this allocation of bill credit will be done on the aggregated intervals over a billing period. If the OAS is a time-of-use (TOU) rate schedule, the allocation will be performed for each aggregated TOU period separately.
- Multiple Tariff Facility Configurations and Metering.
 - For two or more types of NEM-eligible Constituent Generator Groups, the customer-generator must select one of the following options:
 - Install NGOM on each Constituent Generator Group. In addition, metering is required at the PCC capable of separately registering the flow of energy (kWh) in two directions. Billing credit will be calculated as provided for in Special Condition 6(f). Billing credit will be applied consistent with the appropriate net metering tariff as follows:
 - i. First, apply NEMBIO credits (if any) to Generation Rate Component charges on any aggregated accounts, and then to Generation Rate Component charges on the account served by the generating facility (Host Account).
 - Second, apply NEMFC credits (if any) to Generation Rate Component charges on the account served by the generating facility.
 - Third, apply NEM credits (if any) as appropriate to the remainder of energy charges on the account served by the generating facility.

(Continued)

(N)

Advice Letter No. Decision No.

2888-E-A

Issued by Brian K. Cherry Vice President Regulatory Relations

SCHEDULE NEMBIO—NET ENERGY METERING SERVICE FOR BIOGAS CUSTOMER-GENERATORS (Continued)

SPECIAL CONDITIONS: (Cont'd.)

MULTIPLE TARIFF FACILITIES: (Cont'd.)

(N) (D)

Multiple Tariff Facility Configurations and Metering. (Cont'd.)

Cancelling

- For two or more types of NEM-eligible Constituent Generator Groups (Cont'd)
 - If the customer-generator has no Constituent Generator Group(s) b) eligible for Schedule NEMBIOA, but has a Constituent Generator Group eligible for Schedule NEM for small wind (50 kW or less) and/or solar generators, the customer-generator may elect to take service for such under either NEM sub-schedule NEMW or Schedule NEMBIO or NEMFC, as appropriate to one of the other Constituent Generator Group(s).
- For both, NEM-eligible and non-NEM-eligible Constituent Generator Groups, the Customer-Generator must select one of the following options:
 - The Non Export Relay Option: A customer-generator must install a non-export relay on their non-NEM Constituent Generator Groups and install metering as follows: 1) If there is only one type of Constituent Generator Group then metering at the PCC is all that is required and the terms of the appropriate NEM tariff for that group will apply; 2) If there are two or more types of NEM-eligible Constituent Generator Groups, then Metering at the PCC and NGOM metering of each NEM-eligible Constituent Generator Group is required. The requirements of Special Condition 6(f) and 6(g) apply.
 - The Load Metering Option: The customer-generator must install NGOM on each NEM-eligible Constituent Generator Group, install energy consumption metering at the load, and install metering at the PCC as follows: 1) If there is one type of NEM-eligible Constituent Generator Group then the terms of the appropriate NEM tariff for that group will apply; 2) If there are two or more types of NEM-eligible Constituent Generator Groups, then the terms of Special Condition 6(f) and 6(g) apply.
 - The Interval Meter Option: The customer-generator must install interval NGOM on each NEM-eligible Constituent Generator Group and install interval metering at the PCC as follows: 1) If there is one type of Constituent Generator Group then the terms of the appropriate NEM tariff for that group will apply; 2) If there are two or more types of NEM-eligible Constituent Generator Groups, then the terms of Special Condition 6(f) and 6(g) for interval metering apply. Energies (kWh) generated in an interval are aggregated over a billing period according to the OAS.

(N)

(Continued)

Advice Letter No. Decision No.

2888-E-A

Issued by Brian K. Cherry Vice President Regulatory Relations

RULE 21—GENERATING FACILITY INTERCONNECTIONS (Continued)

C. APPLICATION AND INTERCONNECTION PROCESS (Cont'd.)

(N)

- 1. APPLICATION PROCESS (Cont'd.)
 - d. When Required, Applicant and PG&E Commit to Additional Interconnection Study Steps. (Cont'd.)

Table C.2 Summary of Producer Cost Responsibility for Multiple Tariff Interconnections

Existing Generator	New Generator	Initial Review Fee			emental w Fee	Intercor	ailed nnection Cost		nnection es Cost	Sys Modifie	bution tem cations ost
		Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
NEM	Non-NEM	Х		Х		Х		Х		X ^a	
NEM	NEM		Х		х		Х	Х			Х
Non-NEM	NEM		Xp		Xp		Xp	Х			X ^{a,b}
	us NEM and NEM	Х		Х		Х		х		X ^a	

a) Proration will be based upon the annual expected energy output (kWh) derived from the installed nameplate of the generator(s) modified by technology-specific capacity/availability factors, of NEM versus non-NEM generators for the costs that cannot be clearly assigned to either type of tariff.

(N)

(Continued)

b) Change of operation of a non-NEM eligible generator at any time to exporting is treated as a simultaneous NEM and non-NEM application, resulting in associated costs being allocated to the producer.

26147-E

24597-E

(N)

(N)

RULE 21—GENERATING FACILITY INTERCONNECTIONS (Continued)

Cancelling

METERING, MONITORING AND TELEMETRY (Cont'd.)

LOCATION

Where PG&E-owned Metering is located on the Producer's premises, Producer shall provide, at no expense to PG&E, a suitable location for all such Metering Equipment.

COSTS OF METERING

The Producer will bear all costs of the Metering required by this Rule, including the incremental costs of operating and maintaining the Metering Equipment.

MULTIPLE TARIFF METERING

The requirements of Section F.3 may not apply where a Generating Facility includes multiple generators eligible for service under more than one Net Energy Metering (NEM) tariff schedule (e.g., schedules NEM, NEMBIO, NEMFC), or where a Generating Facility consists of one or more NEM eligible generator in combination with one or more non-NEM generators without non-export relays ("Reverse Power Protection"). To ensure proper tariff administration, metering will be required at the PCC and at each of the NEM Constituent Generator Groups. For combinations of multiple NEM eligible tariffs, all of which are located at a single premises, billing administration and metering requirements will be as specified in the appropriate NEM tariff schedule.

Where a Generating Facility consists of one or more NEM Constituent Generator Groups in combination with one or more non-NEM generators, metering of non-NEM generator(s) is not required, unless as specified in Section F.3.

DISPUTE RESOLUTION PROCESS

The following procedures will apply for disputes arising from this Rule:

The Commission shall have initial jurisdiction to interpret, add, delete or modify any provision of this Rule or of any agreements entered into between PG&E and the Producer to implement this tariff ("The Implementing Agreements") and to resolve disputes regarding PG&E's performance of its obligations under its tariffs, the applicable agreements, and requirements related to the Interconnection of the Producer's Generating or Interconnection Facilities pursuant to this Rule.

(Continued)

Advice Letter No. Decision No.

2888-E-A Issued by Brian K. Cherry Vice President Regulatory Relations

RULE 21—GENERATING FACILITY INTERCONNECTIONS (Continued)

Cancelling

- REVIEW PROCESS FOR APPLICATIONS TO INTERCONNECT GENERATING Ι. FACILITIES (Cont'd.)
 - REVIEW PROCESS DETAILS
 - Screen 1: Is the PCC on a Networked Secondary System?
 - If Yes, the Generating Facility does not qualify for Simplified Interconnection. Perform Supplemental Review.
 - If No, continue to next screen.

Significance: Special considerations must be given to Generating Facilities proposed to be installed on networked secondary Distribution Systems because of the design and operational aspects of network protectors. There are no such considerations for radial Distribution Systems.

- Screen 2: Will power be exported across the PCC?
 - If Yes, the Generating Facility does not qualify for Simplified Interconnection. Perform Supplemental Review. For multiple tariff interconnections, refer to Section F.8.

If No, the Generating Facility must incorporate one of the following four options:

Option 1 ("Reverse Power Protection"): To ensure power is not exported across the PCC, a reverse power Protective Function may be provided. The default setting for this Protective Function, when used, shall be 0.1% (export) of the service transformer's rating, with a maximum 2.0 second time delay.

(T)

Option 2 ("Minimum Power Protection"): To ensure that at least a minimum amount of power is imported across the PCC at all times (and, therefore, that power is not exported), an under-power Protective Function may be provided. The default setting for this Protective Function, when used, shall be 5% (import) of the Generating Facility's total Gross Nameplate Rating, with a maximum 2.0 second time delay.

(Continued)

Advice Letter No. Decision No.

2888-E-A Issued by Brian K. Cherry Vice President

Regulatory Relations

Revised Revised Cal. P.U.C. Sheet No. Cal. P.U.C. Sheet No. 26149-E 21484-E

PACIFIC GAS AND ELECTRIC COMPANY

GENERATING FACILITY INTERCONNECTION APPLICATION FORM NO. 79-974 (02/07) (ATTACHED)

(T)

Advice Letter No. Decision No.

2888-E-A Issued by

Pacific Gas and Electric Company®

GENERATING FACILITY INTERCONNECTION APPLICATION

Part 1 – Introduction and Overview

A. Applicability: This Generating Facility Interconnection Application (Application) is used to request the interconnection of a Generating Facility to Pacific Gas and Electric Company's (PG&E) Distribution System (over which the California Public Utilities Commission (CPUC) has jurisdiction). Refer to PG&E's Rule 21 to determine the specific requirements for interconnecting a Generating Facility. Capitalized terms used in this Application, and not otherwise defined herein, shall have the same meanings as defined in PG&E's Rule 21 and Rule 1.

Except as noted in the next paragraph, this Application may be used for any Generating Facility to be operated by, or for, a Customer and/or Producer to supplement or serve part or all of its electric energy requirements that would otherwise be provided by PG&E, including "distributed generation", "cogeneration," emergency, backup, and standby generation, and Net Energy Metered Generating Facilities. A simpler, shorter form is also available from PG&E for Net Energy Metered Generating Facilities with a nameplate rating less than 10kW (Form 79-994). This form is available upon request by telephoning 415-972-5676 or on PG&E's website at http://www.pge.com/gen). While Customers operating Generating Facilities isolated from PG&E's Distribution System are not obligated to enter into an Interconnection Agreement with PG&E, parts of this Application will still need to be completed to satisfy PG&E's notice requirements for operating an isolated Generating Facility as specified in the California Health and Safety Code Section 119085 (b).

This Application <u>may not</u> be used to apply for interconnecting Generating Facilities used to participate in transactions where all, or a portion of, the electrical output of the Generating Facility is scheduled with the California Independent System Operator. Such transactions are subject to the jurisdiction of the Federal Energy Regulatory Commission (FERC) and require a different application available from PG&E.

This Application is not applicable for incentives and/or rebates offered by the Energy Resources Conservation and Development Commission ("CEC") or the CPUC. Please contact those agencies directly or on their respective websites (www.energy.state.ca.us and www.cpuc.ca.gov).

Guidelines and Steps for Interconnection: This Application must be completed and sent to PG&E along with the additional information indicated in Part 1, Section C below to initiate PG&E's interconnection review of the proposed Generating Facility. An Initial Review fee of \$800 (payable by check or money order to PG&E must accompany the Applications except those Applications for isolated Generating Facilities and Net Energy Metering Generating Facilities. Supplemental Review and Interconnection Study fees may be required for large capacity and/or more complex Generating Facility Interconnections; see PG&E's Rule 21, Section C.1.b. & c. for more information regarding interconnection of a generator to PG&E's Distribution System. Please refer to the California Energy Commission's website: http://www.energy.ca.gov/distgen/interconnection/guide_book.html.

This document is only an Application. Upon acceptance of the Generating Facilities, PG&E will prepare an Interconnection Agreement for execution by the "Producer," the party that will be responsible for the Generating Facility. PG&E may also require an inspection and testing of the Generating Facility and installation of any related Interconnection Facilities prior to giving the Producer written authorization to operate in parallel. Unauthorized Parallel Operation may be dangerous and may result in injury to persons and/or may cause damage to equipment and/or property for which a Producer/Customer may be liable!

Please note, other approvals may need to be acquired, and/or other agreements may need to be formed with PG&E or regulatory agencies, such as the Air Quality Management Districts and local governmental building and planning commissions prior to operating a Generating Facility. PG&E's authorization to operate in parallel does not satisfy the need for an Applicant to acquire such other approvals.

- C. Required Documents: Four (4) copies of this Application and each of the following documents <u>are required to</u> be submitted before this application will be processed. Drawings must conform to accepted engineering standards and must be legible. 11"x17" drawings are preferred.
 - 1. A Single-line drawing showing the electrical relationship and descriptions of the significant electrical components such as the primary switchgear, secondary switchboard, protective relays, transformers, generators, circuit breakers, with operating voltages, capacities, and protective functions of the Generating Facility, the Customer's loads, and the interconnection with PG&E's Distribution System. Please show the location of all required net generation electric output meter(s) and the A.C. manual operated disconnect switch on the single line drawing.
 - 2. **Site plans and diagrams** showing the physical relationship of the significant electrical components of the Generating Facility such as generators, transformers, primary switchgear/secondary switchboard, and control panels, the Customer's loads and the interconnection with PG&E's Distribution System. Please show the location of all required net generation electric output meter(s) and the A.C. manual operated disconnect switch on the site plans.
 - 3. If **transformers** are used to interconnect the Generating Facility with PG&E's Distribution System, please provide transformer nameplate information (voltages, capacity, winding arrangements, connections, impedance, et cetera).
 - 4. If a transfer switch or scheme is used to interconnect the Generating Facility with PG&E Distribution System, please provide component descriptions, capacity ratings, and a technical description of how the transfer scheme is intended to operate.
 - If protective relays are used to control the interconnection, provide protection diagrams or elementary drawings showing relay wiring and connections, proposed relay settings, and a description of how the protection scheme is intended to function.
 - 6. An Initial Review fee check or money order in the amount of \$800, if applicable, made out to PG&E referencing the electric account number and "Initial Interconnection Review Fee."



Part 1 Cont'd – Introduction and Overview

D. Mailing Instructions, Assistance: When this application has been completed it may be printed and mailed, along with the required attachments to:

Pacific Gas and Electric Company
Attn: Manager, Generation Interconnection Services

P.O. Box 770000 Mail Code N7L

San Francisco, California, 94177

Alternatively, you may contact PG&E at (415) 972-5676 or e-mail at gen@pge.com

Part 2 – Identifying the Gene	rating Facility's L	ocat	tion and Responsik	ole Partio	es	
Project Name:	Date Received:		Generating Facility ID:	Applica	Application Expiration D to Part 2, Section	
					· ·	,
	(For P	G&E (Use Only)			
A. Customer Electric Acc nterconnected for parallel opera operations only) provide the prin	ation with PG&E?	For a	ggregated electric a	ccounts	(under NI	
Name shown on PG&E se			ctric Account Number		Num	
Meter Location Stre	et Address	L	City		State	Zip
customer Electric Account Cond/or additional information?)	ontact Informatio	n (W	ho is the customer o	contact fo	or progres	s updates
Contact Pers	son		Co	mpany N	Name	
					10	
Phone		Fax	I(E-mail	
Mailing Addr	ess		City		State	Zip
8. Project Contact Information	on (Who is the pro	iect r	manager for this Ger	nerating	Facility?)	
	, , , , , , , , , , , , , , , , , , , ,			J	,	
Project Contact Perso	n (Optional)		Co	mpany N	Name	
•						
Phone		Fax			E-mail	
Mailing Addr	ess		City		State	Zip
8.1. Will the Generating Facility ervice account in A. above (ple		nird) p Ye		name ap	pearing o	n the PG&E



Part 2 Cont'd – Identifying the Generating Facility's Location and Responsible Parties

C.1. Customer - Generating Facility Interconnection Agreement ("GFIA") or Customer Generation Agreement ("CGA") (for 3rd Party Generator on Premises) Information (Please identify the party that will execute the applicable agreement.) This Section is not applicable to Net Energy Metering (NEM) Applicants because PG&E and the Customer, not the 3rd Party if any, must enter into the Net Energy Metering Interconnection Agreement.

Company Name to be entered on GFIA/CGA	Legal Title of Compa	ny to be entered on GFIA/CGA
Person Executing the GFIA/CGA	Title of Person Ex	xecuting the GFIA/CGA
Mailing Address	Phone	E-Mail

C.2. 3rd **Party Owner – GFIA Information** (Please identify the Party, if known, that will execute the GFIA). This Section is not applicable to Net Energy Metering (NEM) Applicants because PG&E and the Customer, not the 3rd Party if any, must enter into the Net Energy Metering Interconnection Agreement.

Company Name to be entered on 0	GFIA/CGA	Legal Title of Co	mpany to be entered on GFIA/CGA
Person Executing the 0	GFIA	Title o	f Person Executing GFIA
Mailing Address	Ph	one	E-Mail

- **D.** Operating Date (What date is this Generating Facility expected to begin operation?)
- E. Expiration Date* (The date the status of this Application is changed to "withdrawn" by PG&E?)
 - The information submitted in this Application will remain active and valid for a period of 12 months from the date the Application was accepted by PG&E as a "completed" Application. If the project has not been interconnected, or that reasonable proof the project is going forward has not been submitted to PG&E by that time, the Application will be considered "withdrawn" and removed from the queue. To the extent that the Initial Review, Supplemental Review, or Detailed Interconnection Study fees have been paid to and the corresponding reviews/study completed by PG&E, Applicant will only be entitled to a return of one-half of the Initial Review fee of \$400. All other fees will be forfeited.



Part 2 Cont'd - Electing Interconnection Cost Responsibilities

F. **Estimated Versus Actual Cost Responsibility**

Under Rule 21 Applicants can elect estimated or actual costs for (1) detailed interconnection studies, and/or (2) Interconnection Facilities and distribution system modifications. This election must be made at the time of application submission. Under both cost options, an estimate is prepared. If the Applicant elects the actual cost option, there will be a true-up after the completion of the work. If actual costs exceed the original estimated amounts, Applicant will be responsible for costs above the estimated amounts. Conversely, if actual costs are less than the original estimated amounts, PG&E will refund the difference.

Applicants seeking interconnection under PG&E's Net Energy Metering tariffs are not responsible for Initial Review, Supplemental Review and Detailed Interconnection Study fees, nor for distribution system modifications' costs.

	Selection of detailed interconnection study cost responsibility* (Non-NEM only):
	Estimated Cost	
-	Actual Cost	
	Selection of Interconnection Facilities and distribution system most responsibility*:	odifications' (if applicable)
	Estimated Cost	
	Actual Cost	
;	Note: If no selections are made, estimated cost responsibility will a	apply.
Part 3	Describing the Generating Facility and Host Customer's Electri	cal Facilities
A. (MP&I)	Indicate the operating mode of the Generating Facility	operating mode options:
		123 (Choose one)

Instructions and Notes

Part 3

Choose from the following operating mode options:

- Parallel Operation: The Generating Facility will interconnect and operate "in parallel" with PG&E's Distribution System for more than one (1) second.
- Momentary Parallel Operation (MP): The Generating Facility will interconnect and operate on a "momentary parallel" basis with PG&E's Distribution System for a duration of one (1) second or less through transfer switches or operating schemes specifically designed and engineered for such operation.
- Isolated Operation (I): The Generating Facility will be "isolated" and prevented from becoming interconnected with PG&E's Distribution System through a transfer switch or operating scheme specifically designed and engineered for such operation.



Part 3 – Cont'd - Describing the Generating Facility and Host Customer's Electrical Facilities

If the answer is operating mode option 1, "parallel operation," please supply <u>all</u> of the information requested for the Generating Facility. Be sure to supply adequate information including diagrams and written descriptions regarding the protective relays that will be used to detect faults or abnormal operating conditions on PG&E's Distribution System.

If the answer is operating mode option 2, "momentary parallel operation," only questions A, E and F of this Part 3 and questions A, B, E, F, I, L, M, N, and S of Part 4 need be answered. Be sure, however, to supply adequate information including diagrams and written descriptions regarding the switching device or scheme that will be used to limit the parallel operation period to one second or less. Please also describe the back up or protective device and controls that will trip the Generating Facility should the transfer switch or scheme not complete the transfer in one second or less.

If the answer is operating mode option 3, "Isolated Operation,"," only questions A, E, and F of this Part 3 and questions A, B, F, and S of Part 4 need be answered. Be sure, however, to supply adequate information including diagrams and written descriptions regarding the isolating switching device or scheme that will be used to prevent the Generating Facility from operating in parallel with PG&E's Distribution System.

B.

Parallel Operation Applications Only If the Answer to Section A above was operating mode option 1, please indicate the type of agreement that is being requested with this Application. If operating mode option 2 or 3 was selected, please skip to questions E and F.

If agreement options 2, 3, 5, 7, 8, 9,or 10 to this Section B are chosen, please provide an estimate of the maximum kW the Generating Facility is expected to export to PG&E's Distribution System. If PG&E determines that the amount of power to be exported is significant in relation to the capacity available on its Distribution System, it may request additional information, including time of delivery or seasonal kW/kWh estimates.

agreement options:
__1 __2 __3 __4 __5
__6 __7 __8 __9 __10
(Choose all that apply)

Maximum kW

Instructions and Notes

Sample agreements are available from PG&E for review. Choose from the following ten (10) agreement options:

Customer Owned Generating Facility (non-NEM)

- 1. **A Generating Facility Interconnection Agreement** that provides for parallel operation of the Generating Facility, but does <u>not</u> provide for exporting power to PG&E's Distribution System. This non-export agreement, however does allow the occasional and uncompensated export of energy to PG&E's Distribution System for less than 2 seconds in duration.
- 2. A "Qualifying Facility" Power Purchase Agreement that provides for parallel operation of the Generating Facility, and exporting energy to PG&E's Distribution System for sale to PG&E. This option is available only to "Qualifying Facilities" with a total Nameplate Capacity of 100 kW or less. See Question F for the definition of a Qualifying Facility. (This type of agreement has not yet been developed by PG&E or approved by the CPUC. Check with PG&E for availability).
- 3. A Generating Facility Interconnection Export Addendum that provides for parallel operation of the Generating Facility <u>and</u> the occasional, continuous, non-compensated, export of inverter-based technology solar and wind energy, 1 MW or less to PG&E's Distribution System. Continuous export is export greater than 60 seconds in duration. This addendum must be executed in concert with Agreement 1.

Third Party Owned Generating Facility (non-NEM)

- A Generating Facility Interconnection Agreement that provides for parallel operation of the 3rd Party owned Generating Facility, but does <u>not</u> provide for exporting energy to PG&E's Distribution System.
- 5. **A "Qualifying Facility" Power Purchase Agreement** that provides for parallel operation of the 3rd Party owned Generating Facility, and exporting energy to PG&E's Distribution System for sale to PG&E. This option is available only to "Qualifying Facilities" with a total Nameplate Capacity of 100 kW or less. See Question F for the definition of a Qualifying Facility. (This type of agreement has not yet been developed by PG&E or approved by the CPUC. Check with PG&E for availability).
- 6. **A Customer Generation Agreement** that defines the relationship between the Customer whose name appears on PG&E's electric service account . This agreement must be executed in addition agreements 4 and 5.

Part 3 Cont'd - Describing the Generating Facility and Host Customer's Electrical Facilities

Are there any meter access issues? Please check all that apply to avoid interconnection delays.

Net Energy Metering Generating Facility

If you wish to have your Generating Facility participate on one of PG&E's Net Energy Metering tariffs, following your bi-directional meter installation, your meter and disconnect switch must be installed in a safe PG&E accessible location and remain unobstructed by plants, structures, locked gates or pets. Meter and disconnect switch access must be maintained at all times for your safety and PG&E's electrical system safety. Additionally, unencumbered access is required for meter reading, system maintenance, and operations. Any animals owned by the customer, for example pet dogs, should be kept clear from these areas to avoid hindering PG&E service personnel from completing their work.

A Net Energy Metering Agreement: Solar and Wind, that provides for parallel operation of the Generating Facility, and exporting energy to PG&E's Distribution System for credit under the terms of PG&E's Net Energy Metering tariffs for solar or wind Generating Facilities of 1MW or less, other than residential or small commercial Generating Facilities of 10 kW or less. This agreement also requires submittal of an expanded net energy metered supplemental application. This option is available only to eligible Generating Facilities as defined in PG&E's Net Energy Metering tariffs.							
A Net Energy Metering Agreement: Bio-Gas, that provides for parallel operation of the Generating Facility, and exporting energy to PG&E's Distribution System for credit under the terms of PG&E's Net Energy Metering tariffs for qualifying bio-gas digester Generating Facilities. This option is available only to eligible Generating Facilities as defined in PG&E's Net Energy Metering tariffs							
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kW							



Part 3 Cont'd - Describing the Generating Facility and Host Customer's Electrical Facilities

Instructions and Notes

Refer to PG&E's Rule 21, Section I.2., for additional information as to how to answer this question. If the Generating Facility will never export power to PG&E's Distribution System, a simpler, lower cost, protection scheme may be used to control the interface between the Generating Facility and PG&E's Distribution System. Choose from the following four options:

- 1. A reverse-power protection device will be installed to measure any export of power and trip the Generating Facility or open an intertie breaker to isolate the Generating Facility if limits are exceeded.
- 2. An under-power protection device will be installed to measure the inflow of power and trip or reduce the output of the Generating Facility if limits are not maintained.
- 3. The Generating Facility Interconnection Facility equipment has been certified as Non-Islanding and the incidental export of power will be limited by the design of the interconnection. If this option is to be used, the continuous ampere rating of the service entrance equipment (service panel rating) that is used by the host Customer facility must be stated in the space provided above.
- 4. The Gross Nameplate Rating of the Generating Facility will not exceed 50% of the host Customer facility's minimum electrical load. If this option is to be used, the minimum load of the host Customer facility must be stated in the space provided above.

Note: With the approval of PG&E, a Producer that wishes to retain the option to export power from a Generating Facility to PG&E's Distribution System may use a different protection scheme that provides for the detection of faults and other abnormal operating conditions.

D. Parallel Operation	What is the maximum 3-phase fault current that will be contributed by the Generating Facility to a 3-phase fault at the Point of Common Coupling (PCC)? (If the Generating Facility is single phase in design, please provide the contribution for a line-to-line fault.)	Amps
Applications Only	Please indicate the short circuit interrupting rating of the host Customer facility's service panel:	Amps

Instructions and Notes

Refer to PG&E's Rule 21 Sections D.4.a. and I.3.g. for significance and additional information. To determine this value, any transformers and/or significant lengths of interconnecting conductor used between each of the Generators (if there are more than one) that make up the Generating Facility and the PCC must be taken into account. The details, impedance, and arrangement of such transformers and interconnecting conductors should be shown on the single-line diagram that is provided. Consult an electrical engineer or the equipment supplier if assistance is needed in answering this question.

It is expected that most Applicants will want to reserve the flexibility to operate any or all of their Generators in parallel. If the design of the proposed Generating Facility limits the amount of generation that may be interconnected at any time to PG&E's Distribution System, please describe the assumptions used in calculating the maximum fault current contribution value.

E. (MP&I)	Please indicate how this Generating Facility will be operated.	_1 _2 _3 _4 _5_6
(3)		(Please choose all options that may apply.)

Choose from the following six operation options:

- 1. **Combined Heat and Power or Cogeneration** Where the operation of the Generating Facility will produce thermal energy for a process other than generating electricity.
- 2. **Peak Shaving/Demand Management** Where the Generating Facility will be operated primarily to reduce electrical demands of the host Customer facility during PG&E's "peak pricing periods".
- Primary Power Source Where the Generating Facility will be used as the primary source of electric power and power supplied by PG&E to the host Customer's loads will be required for supplemental, standby, or backup power purposes only.
- 4. Standby / Emergency / Backup Where the Generating Facility will normally be operated only when PG&E's electric service is not available.
- Net Energy Metering Where the Generating Facility qualifies and receives service under PG&E's Net Energy Metering tariffs. For applicants for the Net Energy Metering of a solar and/or wind generating facility1000kW or less, other than residential or small commercial customers, a supplemental application (Form Number 79-998) is also required.
- 6. **Multiple Tariff** Generating Facilities that have a combination of non-Net Energy Metering (non-NEM) generator(s) and a Net Energy Metering (NEM) generator(s). Check one of the following four options on the next sheet.



Part 3 Cont'd - Describing the Generating Facility and Host Customer's Electrical Facilities

For M	ultiple Tariff Generating Facilities, check one of the following:
	New facility installing non-NEM generator(s) and NEM generator(s) at the same time.
	Existing facility with non-NEM generator(s) and planning to add NEM generator(s). Please provide data for the table below.
	Existing facility with NEM generator(s) and planning to add non-NEM generator(s). Please provide data for the table below.
	Existing facility with NEM generator(s) and planning to add NEM generator(s) under a different NEM tariff. Please provide data for the table below.

Instructions (From Part 4)	Generator Information	Existing Generator Type	Existing Generator Type	New Generator Type	New Generator Type	Generating Facility Totals
#	Please indicate the number of each "type" of Generator being installed: (see Instruction)					
А	Gen/Inverter Manufacturer					
В	Generator/Inverter Model					
С	Gen/Inverter software Version					
D	Is the Gen/Inverter certified	Yes No	Yes No	Yes No	Yes No	
E	Generator design	Synch Induct. Inverter	Synch Induct. Inverter	Synch Induct. Inverter	Synch Induct. Inverter	
F	Gross Nameplate Rating					
I	Operating Voltage					
J	Power Factor rating					
К	PF Adjustment Range					
L	Wiring Configuration					



Part 3 Cont'd - Describing the Generating Facility and Host Customer's Electrical Facilities

Instructions From Part 4	Generator Information	Existing Generator Type	Existing Generator Type	New Generator Type	New Generator Type
M (MP)	3-Phase Winding Configuration (Choose One)	3 Wire Delta 3 Wire Wye 4 Wire Wye			
N (MP)	Neutral Grounding System Used (Choose One)	Ungrounded Solidly Grounded Ground Resistor Ohms			
0	For Synchronous Generators Only: Synchronous Reactance: Transient Reactance: Subtransient Reactance:	(Xd %)(X'd %)(X"d %)			
P	For Induction Generators Only: Locked Rotor Current: OR Stator Resistance: Stator Leakage Reactance: Rotor Resistance: Rotor Resistance:	(Amps) (%) (%) (%) (%)	(Amps) (%) (%) (%) (%)	(Amps) (%) (%) (%) (%)	(Amps) (%) (%) (%) (%) (%)
Q	Short Circuit Current Produced by Generator:	(Amps)	(Amps)	(Amps)	(Amps)
R	For Generators that are Started as a "Motor" Only 1. In-Rush Current: 2. Host Customer's Service Entrance Panel (Main Panel) Continuous Current Rating:	(Amps)	(Amps)	(Amps) (Amps))	(Amps) (Amps))
S (MP&I)	Prime Mover Type: (Circle One)	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15



Part 3 Cont'd - Describing the Generating Facility and Host Customer's Electrical Facilities

	Please indicate if Qualifying Facility Status will be obtained from the	Yes	
(MP&I)	FERC for this Generating Facility.	No	

Instructions and Notes

Parties operating Generating Facilities complying with all of the requirements for qualification as either a small power production facility or cogeneration facility pursuant to the regulations of the FERC (18 Code of Federal Regulations Part 292, Section 292.203 et seq.) implementing the Public Utility Regulatory Policies Act of 1978 (16 U.S.C.A. Section 796, et seq.), or any successor requirements for "Qualifying Facilities," may seek certification from FERC to have the Generating Facility designated as a Qualifying Facility or "QF." In summary, QF's are Generating Facilities using renewable or alternative fuels as a primary energy source or facilities that utilize the thermal energy given off by the generation process for some other useful purpose. QF's enjoy certain rights and privileges not available to non-QF Generating Facilities.

QF status is not required to interconnect and operate in parallel with PG&E's Distribution System.

G.	Please indicate if Generating Facility will meet the annual Efficiency and	Yes
	Operating Standards of PUC Code 218.5(Applicable to Cogeneration	No
	Only)	N/A

Part 4 – Instructions for Describing the Generators

	Generator Information	Instructions and Comments
#	Please indicate the number of each "type" of Generator being installed:	Please provide the following information for each Generator "type". Be sure all Generators classified as one "type" are identical in all respects. If only one type of Generator is to be used, only one column needs to be completed. Please be sure the information in the "Totals" column is correct and reflects the total number of Generator units to be installed.
А	Generator/Inverter Manufacturer	Enter the brand name of the Generator.
В	Generator/Inverter Model	Enter the model name or number assigned by the manufacturer of the Generator.
С	Generator/Inverter Software Version	If this Generator's control and or protective functions are dependent on a "software" program supplied by the manufacturer of the equipment, please provide the version or release number for the software that will be used.
D	Is the Generator Certified by a Nationally Recognized Testing Laboratory (NRTL) according to Rule 21?	Answer "Yes" only if the Generator manufacturer can or has provided certification data. See PG&E's Rule 21, Section J for additional information regarding Generator certification.

Part 4 – Instructions for Describing the Generators

Generator Information	Instructions and Comments
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	Generator Information	Instructions and Comments
E	Generator Design	Please indicate the design of each Generator. Designate "Inverter" anytime an inverter is used as the interface between the Generator and the electric system regardless of the primary power production/storage device used.
F	Gross Nameplate Rating (kVA)	This is the capacity value normally supplied by the manufacturer and stamped on the Generator's "nameplate". This value is not required where the manufacturer provides only a "kW" rating. However, where both kVA and kW values are available, please indicate both.
G	Gross Nameplate Rating (kW)	This is the capacity value normally supplied by the manufacturer and stamped on the Generator's "nameplate". This value is not required where the manufacturer provides only a "kVA" rating. However, where both kVA and kW values are available, please indicate both.
Н	Net Nameplate Rating (kW)	This capacity value is determined by subtracting the "auxiliary" or "station service" loads used to operate the Generator or Generating Facility. Applicants are not required to supply this value but, if it is not supplied, applicable standby charges may be based on the higher "gross" values.
I	Operating Voltage	This value should be the voltage rating designated by the manufacturer and used in this Generating Facility. Please indicate phase-to-phase voltages for 3-phase installations. See PG&E's Rule 21, Section D.2.b. for additional information.
J	Power Factor Rating	This value should be the nominal power factor rating designated by the manufacturer for the Generator. See PG&E's Rule 21, Section D.2.i. for additional information.
K	PF Adjustment Range	Where the power factor of the Generator is adjustable, please indicate the maximum and minimum operating values. See PG&E's Rule 21, Section D.2.i.
L	Wiring Configuration	Please indicate whether the Generator is a single-phase or three-phase device. See PG&E's Rule 21, Section D.3.
М	3-Phase Winding Configuration	For three-phase generating units, please indicate the configuration of the Generator's windings or inverter systems.
N	Neutral Grounding	Wye connected generating units are often grounded – either through a resistor or directly, depending upon the nature of the electrical system to which the Generator is connected. If the grounding method used at this facility is not listed, please attach additional descriptive information.

Part 4 – Instructions for Describing the Generators

Generator Information	Instructions and Comments



	Generator Information	Instructions and Comments
0	For Synchronous Generators Only:	If the Generator is of a "synchronous" design, please provide the synchronous reactance, transient reactance, and subtransient reactance values supplied by the manufacturer. This information is necessary to determine the short circuit contribution of the Generator and as data in load flow and short circuit computer models of PG&E's Distribution System. If the Generator's Gross Nameplate Capacity is 10 MW or greater, PG&E may request additional data to better model the nature and behavior of the Generator with relation to its Distribution System.
Р	For Induction Generators Only:	If the Generator is of an "induction" design, please provide the "locked rotor current" value supplied by the manufacturer. If this value is not available, the stator resistance, stator leakage reactance, rotor resistance, rotor leakage reactance values supplied by the manufacturer may be used to determine the locked rotor current. If the Generator's Gross Nameplate Capacity is 10 MW or greater, PG&E may request additional data to better model the nature and behavior of the Generator with relation to its Distribution System.
Q	Short Circuit Current Produced by Generator	Please indicate the current each Generator can supply to a three-phase fault across its output terminals. For single phase Generators, please supply the phase-to-phase fault current.
R	For Generators that are Started as a "Motor" Only: 1. In-Rush Current 2. Host Customer's Service Entrance Panel (Main Panel) Continuous Current Rating	This information is needed only for Generators that are started by "motoring" the generator. See PG&E's Rule 21, Section I.3.e. for significance and additional information. If this question was answered in Part 3, question C of this Application, it need not be answered here.
S	Prime Mover Type	Please indicate the type and fuel used as the "prime mover" or source of energy for the Generator. 1 = Internal Combustion Engine – Natural Gas 2 = Internal Combustion Engine – Diesel Fueled 3 = Internal Combustion Engine - Other Fuel 4 = Microturbine— Natural Gas 5 = Microturbine— Other Fuel 6 = Combustion Turbine Natural Gas 7 = Combustion Turbine - Other Fuel 8 = Steam Turbine 9 = Photovoltaic Panels 10 = Solar-thermal engine 11 = Fuel Cell— Natural Gas 12 = Fuel Cell— Other Fuel 13 = Hydroelectric Turbine 14 = Wind Turbine 15 = Other (please describe)

PACIFIC GAS AND ELECTRIC COMPANY

(N)

GENERATING FACILITY INTERCONNECTION AGREEMENT
(ELIGIBLE/NON-ELIGIBLE NET GENERATING FACILITY EXPORT)
FORM NO. 79-1069 (02/07)
(ATTACHED)
(N)

Advice Letter No. Decision No. 2888-E-A

Issued by **Brian K. Cherry**Vice President
Regulatory Relations

GENERATING FACILITY INTERCONNECTION AGREEMENT (MULTIPLE TARIFF)



WE	DEL	IVER	ENER	G Y.SM				
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1.	SCOPE	E AND PU	JRPOSE					
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	2.2	Generat PG&E)	ing Facility	dentificat	ion number:		(Assign	ed by
	2.3	Produce	er's electric	service acco	ount number: _		(Assigned by F	G&E)
	2.4			•	G&E to locate cility with PG8		service account us ion System:	sed to
			Name: _					

Address: _____

2.5	City/Zip Code: The Gross Nameplate Rating of the Generating Facility is:	
	2.5.1 Eligible Generator(s): Solar:	kW
	Wind:	kW
	Biogas Digester:	KW
	Fuel Cell:	kW
	2.5.2 Non-Eligible Generator(s):	kW
	2.5.3 Total Gross Nameplate Rating of the Generating Facility:	kW
2.6	The Net Nameplate Rating of the Generating Facility is:	
	2.6.1 Eligible Generator(s):	
	Solar:	kW
	Wind:	kW
	Biogas Digester:	kW
	Fuel Cell:	kW
	2.6.2 Non-Eligible Generator(s):	kW
	2.6.3 Total Net Nameplate Rating of the Generating Facility:	kW
2.7	The maximum level of power that may be exported by the General PG&E's Distribution System is expected to be: 2.7.1 Eligible Generator(s):	ating Facility to
	Solar:	kW
	Wind:	kW
	Biogas Digester:	kW
	Fuel Cell:	kW
	2.7.2 Non-Eligible Generator(s):	

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2.9	The Gen	erating	Facility's	expected	date	of Init	ial Op	eration is
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	Appendix B			nces to Rul &E (Supplie			other se	lected rules

3.

- Appendix C- A Copy of PG&E's Agreement for Installation of Allocation of Special Facilities for Parallel Operation of Nonutility-Owned Generation and/or Electrical Standby Service (Form 79-280) ("Special Facility Agreement"), if applicable, (Formed by the Parties)
- Appendix D Producer's warranty that the Generating Facility meets the requirements for a "Cogeneration facility" pursuant to Section 218.5 of the PU Code (When applicable)
- Appendix E Producer's warranty that the Generating Facility meets the requirements for "Distributed Energy Resources Generation" as defined in Section 353.1 of the PU Code (When applicable)
- Appendix F Listing of eligible service accounts, as defined in PG&E's Schedule NEMBIO to be included in Net Energy Metering calculations (When applicable)
- Appendix G Producer's warranty that it meets the requirements for an "Eligible Biogas Digester Electrical Generating Facility," (applicable Generator(s) only) as defined in Section 2827.9 of the PU Code (When applicable).
- 3.2 When initially capitalized, whether in the singular or in the plural, the terms used herein shall have the meanings assigned to them either in this Agreement or in PG&E's Rule 21, Section H.

4. TERM AND TERMINATION

- 4.1 This Agreement shall become effective as of the last date entered in Section 16, below. The Agreement shall continue in full force and effect until the earliest date that one of the following events occurs:
 - (a) The Parties agree in writing to terminate the Agreement, or
 - (b) Unless otherwise agreed in writing by the Parties, at 12:01 A.M. on the day following the date the electric service account through which Producer's Generating Facility is interconnected to PG&E's Distribution System is closed or terminated, or
 - (c) At 12:01 A.M. on the 61st day after Producer or PG&E provides written Notice pursuant to Section 9 below to the other Party of Producer's or PG&E's intent to terminate this Agreement.
- 4.2 Producer may elect to terminate this Agreement pursuant to the terms of Section 4.1(c) for any reason. PG&E may elect to terminate this Agreement pursuant to the terms of Section 4.1(c) for one or more of the following reasons:

- (a) A change in applicable rules, tariffs, and regulations, as approved or directed by the California Public Utilities Commission "Commission," or a change in any local, state or federal law, statute or regulation, either of which materially alters or otherwise affects PG&E's ability or obligation to perform PG&E's duties under this Agreement; or,
- (b) Unless otherwise agreed to in writing by the Parties, Producer fails to take all corrective actions specified in PG&E's Notice that Producer's Generating Facility is out of compliance with the terms of this Agreement within the time frame set forth in such Notice; or,
- (c) Producer fails to interconnect and operate the Generating Facility per the terms of this Agreement prior to 120 days after the date set forth in Section 2.9, above, as the Generating Facility's expected date of Initial Operation; or.
- (d) Producer abandons the Generating Facility. PG&E shall deem the Generating Facility to be abandoned if PG&E determines, in its sole opinion, the Generating Facility is non-operational and Producer does not provide a substantive response to PG&E Notice of its intent to terminate this Agreement as a result of Producer's apparent abandonment of the Generating Facility affirming Producer's intent and ability to continue to operate the Generating Facility.
- (e) Producer makes a change to the physical configuration of the Generating Facility, as declared in Section 2 and Appendix A of this Agreement.
- 4.3 Notwithstanding any other provisions of this Agreement, PG&E shall have the right to unilaterally file with the Commission, pursuant to the Commission's rules and regulations, an application to terminate this Agreement.
- 4.4 Any agreements attached to and incorporated into this Agreement shall terminate concurrently with this Agreement unless the Parties have agreed otherwise in writing.

5. GENERATING FACILITY AND OPERATING REQUIREMENTS

5.1 Except for that energy delivered to PG&E's Distribution System, electric energy produced by Producer's Generating Facility shall be used solely to serve electrical loads connected to the electric service account that PG&E uses to interconnect Producer's Generating Facility (or, where permitted under Section 218 of the PUC, the electric loads of an on-site or neighboring party lawfully connected to Producer's Generating Facility through Producer's circuits). Producer shall not use the Generating Facility to serve electrical loads that will cause Producer to be considered an "electrical corporation" as such term is used in Section 218 of the California Public Utilities Code.

- 5.2 Unless otherwise agreed upon in writing by the Parties, this Agreement does not provide for, nor otherwise require PG&E to purchase, transmit, distribute, or store the electrical energy produced by Producer's Generating Facility.
- Producer is responsible for operating the Generating Facility in compliance with all of PG&E's tariffs, including but not limited to PG&E's Rule 21 and applicable NEM tariff schedules, and applicable safety and performance standards established by the National Electric Code, Institute of Electrical and Electronic Engineers, accredited testing laboratories such as Underwriters Laboratories, rules of the Commission regarding safety and reliability, and any other regulations and laws governing the Interconnection of the Generating Facility.
- 5.4 Producer shall: (a) maintain the Generating Facility and Interconnection Facilities in a safe and prudent manner and in conformance with all applicable laws and regulations including, but not limited to, Section 5.3, and (b) obtain any governmental authorizations and permits required for the construction and operation of the Generating Facility and Interconnection Facilities. Producer shall reimburse PG&E for any and all losses, damages, claims, penalties, or liability it incurs as a result of Producer's failure to obtain or maintain any governmental authorizations and permits required for construction and operation of Producer's Generating Facility.
- 5.5 Producer shall not commence parallel operation of the Generating Facility until PG&E has provided express written approval. Such approval shall normally be provided per the timelines established by the applicable PUC 2827 section, or by Rule 21. Such approval will be provided after PG&E's receipt of: (1) a completed Generating Facility Interconnection Application (Form 79-974) including all supporting documents and payments as described in the Application; (2) any required NEM supplemental application forms; (3) a signed and completed Generating Facility Interconnection Agreement (Eligible/Non-Eligible NEM Generating Facility Export) Agreement (Form 79-1069); (4) a copy of the Producer's final inspection clearance from the governmental authority having jurisdiction over the Generating Facility; and (5) submission of all applicable payments for reviews, studies, Interconnection Facilities, and Distribution System Modifications. Such approval will not be unreasonably withheld. PG&E shall have the right to have representatives present at the Commissioning Test as defined in Rule 21. Producer shall notify PG&E at least five (5) business days prior to the initial testing.
- In no event shall the delivery of the maximum electric power to PG&E's Distribution System exceed the amount or other limitations specified in Section 2 and Appendix A of this Agreement. If Producer does not regulate its Generating Facility in compliance with the limitations set forth in this Agreement, PG&E may require Producer to disconnect its Generating Facility from PG&E's Distribution System until Producer demonstrates to PG&E's sole satisfaction that Producer has taken adequate measures to regulate the output of its Generating Facility and control its deliveries of electric power to PG&E. Further, should PG&E determine that Producer's operation of the Generating Facility is causing an unsafe condition or is adversely affecting PG&E's ability to utilize its Distribution System in any manner, even if Producer's deliveries of electric power to PG&E's Distribution System are within the limitations specified in this Agreement, PG&E may require Producer to temporarily or permanently reduce or cease deliveries of electric power to PG&E's Distribution System. Alternatively, the Parties may agree to other corrective

measures so as to mitigate the effect of electric power flowing from the Generating Facility to PG&E's Distribution System. Producer's failure to comply with the terms of this Section shall constitute a material breach of this Agreement and PG&E may initiate termination in accordance with the terms of Section 4.2(b).

- 5.7 Producer shall not deliver reactive power to PG&E's Distribution System unless the Parties have agreed otherwise in writing.
- 5.8 The Generating Facility shall be operated with all of Producer's Protective Functions in service whenever the Generating Facility is operated in parallel with PG&E's Distribution System. Any deviation from these requirements may occur only when the Parties have agreed to such deviations in writing.
- 5.9 If Producer declares that its Generating Facility meets the requirements for "Cogeneration" as such term is used in Section 218.5 of the PUC (or any successor definition of "Cogeneration") ("Cogeneration Requirements"), Producer warrants that, beginning on the date of Initial Operation and continuing throughout the term of this Agreement, its Generating Facility shall continue to meet such Cogeneration Requirements, per Appendix D of this Agreement.

6. INTERCONNECTION FACILITIES

- 6.1 Producer and/or PG&E, as appropriate, shall provide Interconnection Facilities that adequately protect PG&E's Distribution System, personnel, and other persons from damage or injury, which may be caused by the operation of Producer's Generating Facility.
- 6.2 Producer shall be solely responsible for the costs, design, purchase, construction, operation, and maintenance of the Interconnection Facilities that Producer owns.
- 6.3 If the provisions of PG&E's Rule 21, or any other tariff or rule approved by the Commission, requires PG&E to own and operate a portion of the Interconnection Facilities, Producer and PG&E shall promptly execute an Special Facilities Agreement that establishes and allocates responsibility for the design, installation, operation, maintenance, and ownership of the Interconnection Facilities. This Special Facilities Agreement shall be attached to and made a part of this Agreement as Appendix C.
- 6.4 The Interconnection Facilities may include Net Generation Output Metering for determination of standby charges and applicable non-bypassable charges, and/or other meters required for PG&E's administration and billing pursuant to PG&E's tariffs for net energy metering.

7. LIMITATION OF LIABILITY

Each Party's liability to the other Party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its

performance of this agreement, shall be limited to the amount of direct damage actually incurred. In no event shall either Party be liable to the other Party for any indirect, special, consequential, or punitive damages of any kind whatsoever.

8. INSURANCE

- 8.1 In connection with Producer's performance of its duties and obligations under this Agreement, Producer shall maintain, during the term of this Agreement, general liability insurance with a combined single limit of not less than:
 - (a) Two million dollars (\$2,000,000) for each occurrence if the Gross Nameplate Rating of Producer's Generating Facility is greater than one hundred (100) kW;
 - (b) One million dollars (\$1,000,000) for each occurrence if the Gross Nameplate Rating of Producer's Generating Facility is greater than twenty (20) kW and less than or equal to one hundred (100) kW; and
 - (c) Five hundred thousand dollars (\$500,000) for each occurrence if the Gross Nameplate Rating of Producer's Generating Facility is twenty (20) kW or less.
 - (d) Two hundred thousand dollars (\$200,000) for each occurrence if the Gross Nameplate Rating of Producer's Generating Facility is ten (10) kW or less and Producer's Generating Facility is connected to an account receiving residential service from PG&E.

Such general liability insurance shall include coverage for "Premises-Operations, Owners and Contractors Protective, Products/Completed Operations Hazard, Explosion, Collapse, Underground, Contractual Liability, and Broad Form Property Damage including Completed Operations."

- 8.2 The general liability insurance required in Section 8.1 shall, by endorsement to the policy or policies, (a) include PG&E as an additional insured; (b) contain a severability of interest clause or cross-liability clause; (c) provide that PG&E shall not by reason of its inclusion as an additional insured incur liability to the insurance carrier for payment of premium for such insurance; and (d) provide for thirty (30) calendar days' written notice to PG&E prior to cancellation, termination, alteration, or material change of such insurance.
- 8.3 If Producer's Generating Facility employs the Constituent Generator Groups of solar and wind co-metering (50 kW or greater) the requirements of Section 8.1 shall be waived. However, to the extent that Producer has currently in force Commercial General Liability or Personal (Homeowners's) Liability insurance, Producer agrees that it will maintain such insurance in force for the duration of this Agreement in no less than amounts currently in effect. PG&E shall have the right to inspect or obtain a copy of the original policy or policies of insurance prior to commencing operations. Such insurance shall provide for thirty (30) calendar days

written notice to PG&E prior to cancellation, termination, alteration, or material change of such insurance.

- 8.4 Evidence of the insurance required in Section 8.2 shall state that coverage provided is primary and is not in excess to or contributing with any insurance or self-insurance maintained by PG&E.
- 8.5 Producer agrees to furnish the required certificates and endorsements to PG&E prior to Initial Operation. PG&E shall have the right to inspect or obtain a copy of the original policy or policies of insurance.
- 8.6 If Producer is self-insured with an established record of self-insurance, Producer may comply with the following in lieu of Sections 8.1 through 8.4:
 - (a) Producer shall provide to, PG&E, at least thirty (30) calendar days prior to the date of Initial Operation, evidence of an acceptable plan to self-insure to a level of coverage equivalent to that required under Section 8.1.
 - (b) If Producer ceases to self-insure to the level required hereunder, or if Producer are unable to provide continuing evidence of Producer's ability to self-insure, Producer agrees to immediately obtain the coverage required under Section 8.1.
- 8.7 All insurance certificates, statements of self insurance, endorsements, cancellations, terminations, alterations, and material changes of such insurance shall be issued and submitted to the following:

Pacific Gas and Electric Company
Attention: Manager, Generation Interconnection Services
PO Box 770000
Mail Code N7L
San Francisco, California 94177

9. NOTICES

9.1 Any written notice, demand, or request required or authorized in connection with this Agreement ("Notice") shall be deemed properly given if delivered in person or sent by first class mail, postage prepaid, to the address specified below:

If to PG&E:	Pacific Gas and Electric Company Attention: Manager, Generation Interconnection Services P.O. Box 770000 Mail Code N7L San Francisco, California 94177
If to Producer:	Producer Name: Address: City: Phone: ()

FAX:	()	
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- 9.2 A Party may change its address for Notices at any time by providing the other Party Notice of the change in accordance with Section 9.1.
- 9.3 The Parties may also designate operating representatives to conduct the daily communications, which may be necessary or convenient for the administration of this Agreement. Such designations, including names, addresses, and phone numbers may be communicated or revised by one Party's Notice to the other.

REVIEW OF RECORDS AND DATA

- 10.1 PG&E shall have the right to review and obtain copies of Producer's operations and maintenance records, logs, or other information such as, unit availability, maintenance outages, circuit breaker operation requiring manual reset, relay targets and unusual events pertaining to Producer's Generating Facility or its interconnection with PG&E's Distribution System.
- 10.2 Producer authorizes to release to the California Energy Commission (CEC) information regarding Producer's facility, including customer name, location, size, and operational characteristics of the unit, as request6ed from time to time pursuant to the CEC's rules and regulations.

11. ASSIGNMENT

Producer shall not voluntarily assign its rights nor delegate its duties under this Agreement without PG&E's written consent. Any assignment or delegation Producer makes without PG&E's written consent shall not be valid. PG&E shall not unreasonably withhold its consent to Producer's assignment of this Agreement.

12. NON-WAIVER

None of the provisions of this Agreement shall be considered waived by a Party unless such waiver is given in writing. The failure of a Party to insist in any one or more instances upon strict performance of any of the provisions of this Agreement or to take advantage of any of its rights hereunder shall not be construed as a waiver of any such provisions or the relinquishment of any such rights for the future, but the same shall continue and remain in full force and effect.

13. GOVERNING LAW, JURISDICTION OF COMMISSION, INCLUSION OF PG&E's TARIFF SCHEDULES AND RULES

- 13.1 This Agreement shall be interpreted, governed, and construed under the laws of the State of California as if executed and to be performed wholly within the State of California without giving effect to choice of law provisions that might apply to the law of a different jurisdiction.
- 13.2 This Agreement shall, at all times, be subject to such changes or modifications by the Commission as it may from time to time direct in the exercise of its jurisdiction.
- 13.3 The interconnection and services provided under this Agreement shall at all times be subject to the terms and conditions set forth in the Tariff Schedules and Rules applicable to the electric service provided by, PG&E, which Tariff Schedules and Rules are hereby incorporated into this Agreement by this reference.
- 13.4 Notwithstanding any other provisions of this Agreement, PG&E shall have the right to unilaterally file with the Commission, pursuant to the Commission's rules and regulations, an application for change in rates, charges, classification, service, tariff or rule or any agreement relating thereto.

14. AMENDMENT AND MODIFICATION

This Agreement can only be amended or modified in writing, signed by both Parties.

15. ENTIRE AGREEMENT

This Agreement, including any incorporated Tariff Schedules and rules, contains the entire agreement and understanding between the Parties, their agents, and employees as to the subject matter of this Agreement. Each party also represents that in entering into this Agreement, it has not relied on any promise, inducement, representation, warranty, agreement or other statement not set forth in this Agreement or in the incorporated tariff schedules and rules.

16. SIGNATURES

IN WITNESS WHEREOF, the Parties hereto have caused two originals of this Agreement to be executed by their duly authorized representatives. This Agreement is effective as of the last date set forth below.

PRODUCER'S NAME	PACIFIC GAS AND ELECTRIC COMPANY
Ву:	Ву:
Nam	Name:
Title:	Title:
Date:	Date:

GENERATING FACILITY INTERCONNECTION AGREEMENT (ELIGIBLE/NON-ELIGIBLE NEM GENERATING FACILITY EXPORT) PACIFIC GAS AND ELECTRICCOMPANY

APPENDIX A

DESCRIPTION OF GENERATING FACILITY AND SINGLE-LINE DIAGRAM, (Provided by Producer)

(Note: The Description of the Generating Facility should include, but not limited to, for each of the technology types of generation: spatial configuration, net and gross nameplate ratings, manufacturer, if the generators are certified under Rule 21, protection equipment, and intended mode of operation (i.e. non-export: export up to 2 seconds; inadvertent export: export between 2 seconds and 60 seconds; and continuous export: export greater than 60 seconds). Additionally points of interconnection with PG&E, as well as locations and type of protection equipment and disconnect switches should be identified.

APPENDIX B RULES "2" AND "21"

(Note: PG&E's electric Rules "2" and "21" may be subject to such changes or modifications by the Commission as the Commission may, from time to time, direct in the exercise of its jurisdiction. PG&E's tariffs, including Rules "2" and "21" can be accessed via the PG&E website at www.pge.com/tariffs. Upon request, PG&E can provide copies to Producer of Rules "2" and "21.")

APPENDIX C
(If Applicable)
RULE 21 "SPECIAL FACILITIES" AGREEMENT
(Formed between the Parties)

APPENDIX D (When applicable)

PRODUCER'S WARRANTY THAT THE GENERATING FACILITY IS A "COGENERATION FACILITY" PURSUANT TO SECTION 218.5 OF THE CALIFORNIA PUBLIC UTILITIES CODE

For the purpose of securing the Competition Transition Charge exemption available under Section 372 of the PU Code, Producer hereby declares that the Generating Facility meets the requirements for "Cogeneration" as such term is used in Section 218.5 of the PU Code ("Cogeneration Requirements").

Producer warrants that, beginning on the date of Initial Operation and continuing throughout the term of this Agreement, the Generating Facility shall continue to meet the Cogeneration Requirements. If Producer becomes aware that its Generating Facility has ceased to meet the Cogeneration Requirements, Producer shall promptly provide PG&E with Notice of such change pursuant to Section 9.1 of the Agreement. If at any time during the term of this Agreement PG&E determines in its sole discretion that Producer's Generating Facility may no longer meet the Cogeneration Requirements, PG&E may require Producer to provide evidence that the Generating Facility continues to meet the Cogeneration Requirements within 15 business days of PG&E's request for such evidence. Additionally, PG&E may periodically (typically, once per year) inspect Producer's Generating Facility and/or require documentation from Producer to monitor the Generating Facility's compliance with the Cogeneration Requirements. If PG&E determines in its sole judgment that Producer either failed to provide evidence in a timely manner or that it provided insufficient evidence that its Generating Facility continues to meet the Cogeneration Requirements, then the Cogeneration status of the Generating Facility shall be deemed ineffective until such time as Producer again demonstrates to PG&E's reasonable satisfaction that the Generating Facility meets the requirements for a Cogeneration facility (the "Cogeneration Status Change").

PG&E shall revise its records and the administration of this Agreement to reflect the Cogeneration Status Change and provide Notice to Producer of the Cogeneration Status Change pursuant to Section 9.1 of this Agreement. Such Notice shall specify the effective date of the Cogeneration Status Change. This date shall be the first day of the calendar year for which PG&E determines in its sole discretion that the Generating Facility first ceased to meet the Cogeneration Requirements. PG&E shall invoice the Producer's electric service account through which the Generating Facility is Interconnected with PG&E's Distribution System for Competition Transition Charges ("CTCs") that were not previously billed during the period between the effective date of the Status Change and the date of the Notice in reliance upon Producer's representations that the Generating Facility complied with the Cogeneration Requirements and therefore was eligible for the exemption from CTCs available under Section 372 of the PU Code.

Any amounts to be paid or refunded by Producer, as may be invoiced by PG&E pursuant to the terms of this warranty, shall be paid to PG&E within 30 days of Producer's receipt of such invoice.

APPENDIX E (When applicable)

PRODUCER'S WARRANTY THAT THE GENERATING FACILITY IS A "DISTRIBUTED ENERGY RESOURCES GENERATION" FACILITY PURSUANT TO SECTION 353.1 OF THE CALIFORNIA PUBLIC UTILITIES CODE

For the purpose of securing the tariff charge exemption available under Section 353.3 of the PU Code, Producer hereby declares that the Generating Facility meets the requirements for "Distributed Energy Resources Generation" as such term is used in Section 353.1 of the PU Code ("DERG Requirements").

Producer warrants that, beginning on the date of Initial Operation and continuing throughout the term of this Agreement, its Generating Facility shall continue to meet the DERG Requirements. If Producer becomes aware that the Generating Facility has ceased to meet the DERG Requirements, Producer shall promptly provide PG&E with Notice of such change pursuant to Section 9.1 of the Agreement. If at any time during the term of this Agreement PG&E determines in its sole discretion that Producer's Generating Facility may no longer meet the DERG Requirements, PG&E may require Producer to provide evidence that the Generating Facility continues to meet the DERG Requirements within 15 business days of PG&E's request for such evidence. Additionally, PG&E may periodically (typically, once per year) inspect Producer's Generating Facility and/or require documentation from Producer to monitor the Generating Facility's compliance with the DERG Requirements. If PG&E determines in its sole judgment that Producer either failed to provide evidence in a timely manner or that it provided insufficient evidence that its Generating Facility continues to meet the DERG Requirements, then the Distributed Energy Resources Generation status of the Generating Facility shall be deemed ineffective until such time as Producer again demonstrates to PG&E's reasonable satisfaction that the Generating Facility meets the requirements for a Distributed Energy Resources Generation facility (the "DERG Status Change").

PG&E shall revise its records and the administration of this Agreement to reflect the DERG Status Change and provide Notice to Producer of the DERG Status Change pursuant to Section 9.1 of this Agreement. Such Notice shall specify the effective date of the DERG Status Change. This date shall be the first day of the calendar year for which PG&E determines in its sole discretion that the Generating Facility first ceased to meet the DERG Requirements. PG&E shall invoice the Producer electric service account through which the Generating Facility is Interconnected with PG&E's Distribution System for any tariff charges that were not previously billed during the period between the effective date of the DERG Status Change and the date of the Notice in reliance upon Producer's representations that the Generating Facility complied with the DERG Requirements and therefore was eligible for the exemption from tariff charges available under Section 353.3 of the PU Code.

Any amounts to be paid or refunded by Producer, as may be invoiced by PG&E pursuant to the terms of this warranty, shall be paid to PG&E within 30 days of Producer's receipt of such invoice.

APPENDIX F (When applicable)

LIST OF ELIGIBLE ACCOUNTS TO BE INCLUDED IN NET ENERGY METERING CALCULATIONS PURSUANT TO SCHEDULE NEMBIO SPECIAL CONDITION 4

Account Number	Address (Street, City, Zip Code)

APPENDIX F

(When applicable)

PRODUCER'S WARRANTY THAT THE GENERATING FACILITY IS AN ELIGIBLE BIOGAS ELECTRICAL GENERATING FACILITY PURSUANT TO SECTION 2827.9 OF THE CALIFORNIA PUBLIC UTILITIES CODE

Producer has declared that the Generating Facility meets the requirements for an "Eligible Biogas Electrical Generating Facility", as defined in Section 2827.9 of the California Public Utilities Code. ("Eligibility Requirements").

Producer warrants that, beginning on the date of Initial Operation and continuing throughout the term of this Agreement, its Generating Facility shall continue to meet the Eligibility Requirements. If Producer becomes aware that the Generating Facility has ceased to meet the Eligibility Requirements, Producer shall promptly provide PG&E with Notice of such change pursuant to Section 9.1 of the Agreement. If at any time during the term of this Agreement PG&E determines in its sole discretion that Producer's Generating Facility may no longer meet the Eligibility Requirements, PG&E may require Producer to provide evidence that the Generating Facility continues to meet the Eligibility Requirements within 15 business days of PG&E's request for such evidence. Additionally, PG&E may periodically (typically, once per year) inspect Producer's Generating Facility and/or require documentation from Producer to monitor the Generating Facility's compliance with the Eligibility Requirements. If PG&E determines in its sole judgment that Producer either failed to provide evidence in a timely manner or that it provided insufficient evidence that its Generating Facility continues to meet the Eligibility Requirements, then the Distributed Energy Resources Generation status of the Generating Facility shall be deemed ineffective until such time as Producer again demonstrates to PG&E's reasonable satisfaction that the Generating Facility meets the requirements for a Distributed Energy Resources Generation facility (the "Eligibility Status Change").

PG&E shall revise its records and the administration of this Agreement to reflect the Eligibility Status Change and provide Notice to Producer of the Eligibility Status Change pursuant to Section 9.1 of this Agreement. Such Notice shall specify the effective date of the Eligibility Status Change. This date shall be the first day of the calendar year for which PG&E determines in its sole discretion that the Generating Facility first ceased to meet the Eligibility Requirements. PG&E shall invoice the Producer for any tariff charges that were not previously billed during the period between the effective date of the Eligibility Status Change and the date of the Notice in reliance upon Producer's representations that the Generating Facility complied with the Eligibility Requirements and therefore was eligible for the rate treatment available under the Net Energy Metering provisions of PG&E's Schedule NEM-BIO, Experimental Biogas Net Energy Metering.

Any amounts to be paid or refunded by Producer, as may be invoiced by PG&E pursuant to the terms of this warranty, shall be paid to PG&E within 30 days of Producer's receipt of such invoice.

Cal. P.U.C. Sheet No.

26151-E 25923-E

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PG&E Gas and Electric Advice Filing List

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ABAG Power Pool
Accent Energy

Aglet Consumer Alliance
Agnews Developmental Center

Ahmed, Ali Alcantar & Kahl

Ancillary Services Coalition
Anderson Donovan & Poole P.C.
Applied Power Technologies
APS Energy Services Co Inc

Arter & Hadden LLP

Avista Corp

Barkovich & Yap, Inc.

BART

Bartle Wells Associates

Blue Ridge Gas

Bohannon Development Co BP Energy Company Braun & Associates C & H Sugar Co.

CA Bldg Industry Association

CA Cotton Ginners & Growers Assoc.

CA League of Food Processors

CA Water Service Group
California Energy Commission
California Farm Bureau Federation
California Gas Acquisition Svcs

California ISO
Calpine
Calpine Corp

Calpine Gilroy Cogen

Cambridge Energy Research Assoc

Cameron McKenna
Cardinal Cogen
Cellnet Data Systems
Chevron Texaco

Chevron USA Production Co.

City of Glendale
City of Healdsburg
City of Palo Alto
City of Redding
CLECA Law Office
Commerce Energy
Constellation New Energy

CPUC

Cross Border Inc
Crossborder Inc
CSC Energy Services
Davis, Wright, Tremaine LLP
Defense Fuel Support Center
Department of the Army

Department of Water & Power City

DGS Natural Gas Services

Douglass & Liddell

Downey, Brand, Seymour & Rohwer

Duke Energy

Duke Energy North America

Duncan, Virgil E.
Dutcher, John
Dynegy Inc.
Ellison Schneider
Energy Law Group LLP

Energy Management Services, LLC

Exelon Energy Ohio, Inc Exeter Associates Foster Farms

Foster, Wheeler, Martinez Franciscan Mobilehome

Future Resources Associates, Inc

G. A. Krause & Assoc

Gas Transmission Northwest Corporation

GLJ Energy Publications

Goodin, MacBride, Squeri, Schlotz &

Hanna & Morton Heeg, Peggy A.

Hitachi Global Storage Technologies

Hogan Manufacturing, Inc

House, Lon

Imperial Irrigation District

Integrated Utility Consulting Group International Power Technology Interstate Gas Services, Inc. IUCG/Sunshine Design LLC

J. R. Wood, Inc JTM, Inc

Luce, Forward, Hamilton & Scripps

Manatt, Phelps & Phillips

Marcus, David

Maynor, Donald H.

Matthew V. Brady & Associates

MBMC, Inc.
McKenzie & Assoc
McKenzie & Associates
Meek, Daniel W.
Mirant California, LLC
Modesto Irrigation Dist
Morrison & Foerster

Morse Richard Weisenmiller & Assoc.

Navigant Consulting
New United Motor Mfg, Inc
Norris & Wong Associates
North Coast Solar Resources
Northern California Power Agency
Office of Energy Assessments

OnGrid Solar

Palo Alto Muni Utilities

PG&E National Energy Group Pinnacle CNG Company

PITCO Plurimi. Inc.

PPL EnergyPlus, LLC

Praxair, Inc. Price. Rov

Product Development Dept R. M. Hairston & Company R. W. Beck & Associates

Recon Research

Regional Cogeneration Service

RMC Lonestar

Sacramento Municipal Utility District

SCD Energy Solutions Seattle City Light

Sempra

Sempra Energy

Sequoia Union HS Dist

SESCO

Sierra Pacific Power Company

Silicon Valley Power

Smurfit Stone Container Corp Southern California Edison

SPURR

St. Paul Assoc

Sutherland, Asbill & Brennan Tabors Caramanis & Associates

Tecogen, Inc TFS Energy Transcanada

Turlock Irrigation District

U S Borax, Inc United Cogen Inc. URM Groups

Utility Cost Management LLC
Utility Resource Network
Wellhead Electric Company
Western Hub Properties, LLC

White & Case WMA